

# Colorado Department of Public Health and Environment

# **OPERATING PERMIT**

**Cheyenne Compressor Station** 

First Issued: September 1, 1998

Renewed: March 1, 2006

# AIR POLLUTION CONTROL DIVISION COLORADO OPERATING PERMIT

FACILITY NAME: Cheyenne OPERATING PERMIT NUMBER

**Compressor Station** 

FACILITY ID: 1230051

RENEWED: March 1, 2006 EXPIRATION DATE: March 1, 2011

MODIFICATIONS: See Appendix F of Permit

Issued in accordance with the provisions of Colorado Air Pollution Prevention and Control Act, 25-7-101 et seq. and applicable rules and regulations.

ISSUED TO: PLANT SITE LOCATION:

Colorado Interstate Gas Company Section 5, T11N, R66W (~ 4 miles N of Rockport)

P.O. Box 1087 Rockport, CO Colorado Spring, CO 80944 Weld County

INFORMATION RELIED UPON

Operating Permit Renewal Application

Received: August 28, 2002

And Additional Information Received: January 9 & May 26, 2004 and February 18 & June 15, 2005

Nature of Business: Natural Gas Transmission

Primary SIC: 4922

RESPONSIBLE OFFICIAL (PRIMARY) FACILITY CONTACT PERSON

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95OPWE090

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SUBMITTAL DEADLINES

Semi-Annual Monitoring Periods: March 1 – August 30, September 1 – February 28(29),

Semi-Annual Monitoring Report: Due on October 1, 2006 and April 1, 2007 and subsequent years

First Annual Compliance Period: March 1 – August 30 Subsequent Annual Compliance Periods: September 1 – August 30

Annual Compliance Certification: Due on October 1, 2006 and subsequent years

Note that the Semi-Annual Monitoring Reports and Annual Compliance Certifications must be received at the Division office by 5:00 p.m. on the due date. Postmarked dates will not be accepted for the purposes of determining the timely receipt of those reports/certifications.

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#### **SECTION I - General Activities and Summary**

#### 1. Permitted Activities

1.1 This facility is a mainline compressor station. Its main function is to compress and transmit natural gas from the Wyoming area to the Front Range area located in Colorado. This is achieved by using eight (8) internal combustion engine driven horizontal compressors.

In the summer of 2003 construction commenced on an additional internal combustion engine and turbine, both driving compressors as part of the Front Range Expansion Project (FREP). The FREP supplies gas to the Colorado Front Range and a power plant in Colorado Springs.

In the summer of 2004, construction commenced on the Cheyenne Plains Project (CPP), this additional expansion is to support a new pipeline transporting gas east into Kansas. As part of this project an additional internal combustion engine was installed and is addressed in this permit. The remaining CPP equipment will be addressed in a separate Title V operating permit (05OPWE281) to be issued in the future.

The facility is located approximately 4 miles north of Rockport in Weld County on Highway 85. The area in which the plant operates is designated as attainment for all criteria pollutants. There are two affected states within 50 miles of the plant: Wyoming and Nebraska. The following Federal Class I designated area is within 100 kilometers of the plant: Rocky Mountain National Park.

- 1.2 Until such time as this permit expires or is modified or revoked, the permittee is allowed to discharge air pollutants from this facility in accordance with the requirements, limitations, and conditions of this permit.
- 1.3 This Operating Permit incorporates the applicable requirements contained in the underlying construction permits, and does not affect those applicable requirements, except as modified during review of the application or as modified subsequent to permit issuance using the modification procedures found in Regulation No. 3, Part C. These Part C procedures meet all applicable substantive New Source Review requirements of Part B. Any revisions made using the provisions of Regulation No. 3, Part C shall become new applicable requirements for purposes of this operating permit and shall survive reissuance. This permit incorporates the applicable requirements (except as noted in Section II) from the following construction permits: 11WE 631-1, 11WE 631-2, 11WE631-3, 11WE 631-4, 13WE536-1, 13WE526-2, 97WE0032, 98WE0030, 03WE0184, 03WE0185 and 03WE0912.
- 1.4 All conditions in this permit are enforceable by US Environmental Protection Agency, Colorado Air Pollution Control Division (hereinafter Division) and its agents, and citizens unless otherwise specified. **State-only enforceable conditions are:** Permit Condition Number(s): Section IV Conditions 3g, 14 and 18 (as noted)

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1.5 All information gathered pursuant to the requirements of this permit is subject to the Recordkeeping and Reporting requirements listed under Condition 22 of the General Conditions in Section IV of this permit.

#### 2. Alternative Operating Scenarios

- 2.1 The permittee shall be allowed to make the following changes to its method of operation without applying for a revision of this permit.
  - 2.1.1 No separate operating scenarios have been specified.

#### 3. Prevention Of Significant Deterioration (PSD)

- 3.1 This facility is located in an area designated attainment for all pollutants. It is categorized as a major stationary source (Potential to Emit > 250 tons per year for NO<sub>X</sub>, CO and VOC). Future modifications at this facility resulting in a significant net emissions increase (see Regulation No. 3, Part D, Section II.A.27 and 44) for any pollutant as listed in Regulation No. 3, Part D, Section II.A.44 or a modification which is major by itself will result in the application of the PSD review requirements.
- 3.2 The following Operating Permits are associated with this facility for purposes of determining applicability of Prevention of Significant Deterioration regulations: 05OPWE281 (Cheyenne Plains Gas Pipeline Company)

#### 4. Accidental Release Prevention Program (112(r))

4.1 Based on the information provided by the applicant, the facility is not subject to the provisions of the Accidental Release Prevention Program (section 112(r) of the Federal Clean Air Act).

#### **5.** Compliance Assurance Monitoring (CAM)

5.1 The following emission points at this facility use a control device to achieve compliance with an emission limitation or standard to which they are subject and have pre-control emissions that exceed or are equivalent to the major source threshold. They are therefore subject to the provisions of the CAM program as set forth in 40 CFR Part 64, as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV:

None

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#### 6. **Summary of Emission Units**

The emissions units regulated by this permit are the following: 6.1

Emission Unit Number	AIRS Stack Number	Facility Identifier/ Stack ID	Description	Pollution Control Device
E001/ CIG CG-1	001	S001/ CIG-1	Cooper 2-cycle Clean Burn Internal Combustion Engine, Model GMVH-12, Serial No. 48534, 7250 Btu/hp-hr, 2700 hp, natural gas fired.	None
E002/ CIG CG-2	001	S002/ CIG-2	Cooper 2-cycle Clean Burn Internal Combustion Engine, Model GMVH-12, Serial No. 48833, 7250 Btu/hp-hr, 2700 hp, natural gas fired.	None
E003/ CIG CG-3	001	S003/ CIG-3	Cooper 2-cycle Clean Burn Internal Combustion Engine, Model GMVH-12, Serial No. 48532, 7250 Btu/hp-hr, 2700 hp, natural gas fired.	None
E004/ CIG CG-4	001	S004/ CIG-4	Cooper 2-cycle Clean Burn Internal Combustion Engine, Model GMVH-12, S/N: 48531, 7250 Btu/hp-hr, 2700 hp, natural gas fired.	None
E005/ WIC CG-1	007	S006/ WIC-1	Cooper 2-cycle Clean Burn Internal Combustion Engine, Model GMVH-12, S/N: 48867, 6799.2 Btu/hp-hr, 2700 hp, natural gas fired.	None
E006/ WIC CG-2	008	S007/ WIC-2	Cooper 2-cycle Clean Burn Internal Combustion Engine, Model GMVH-12, S/N: 48868, 6799.2 Btu/hp-hr, 2700 hp, natural gas fired.	None
E-7301/ WIC CG- 7301	011	X-7301/ WIC-3	Cooper 2-cycle Clean Burn Internal Combustion Engine, Model GMVH-12C2, S/N: 46291, 6950 Btu/hp-hr, 2700 hp, natural gas fired.	None
E-7401/ WIC CG- 7401	012	CG-7401/ WIC-4	Cooper 2-cycle Clean Burn Internal Combustion Engine, Model GMVH-12C2, S/N: 48468, 6975 Btu/hp-hr, 2700 hp, natural gas fired.	None
E008/ FR CG-7501	013	S008/ FR-1	Caterpillar 4-Cycle Lean Burn Internal Combustion Engine, Model No. 3606 TALE, S/N: 4ZS00310, natural gas fired. The engine is rated at 1,775 hp and 13 mmBtu/hr.	Oxidation Catalyst
E009/ FR CG-7601	014	S009/ FR-2	Solar Taurus Natural Gas Fired Turbine, Model No. 60-7800S, S/N: 1255T, natural gas fired turbine. The turbine is rated at 6,536 hp and 58 mmBtu/hr.	Dry Low NO <sub>X</sub> Combustion System (SoLoNO <sub>X</sub> II)
E010/ FR/CG-7701	017	S010/ FR-3	One (1) Caterpillar, Model No. G3608 TALE, S/N: BEN00254, natural gas fired internal combustion engine. The engine is rated at 2,443 hp and 16.47 mmBtu/hr.	Oxidation Catalyst

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#### **SECTION II - Specific Permit Terms**

1. CG-1/S001, CG-2/S002, CG-3/S003 and CG-4/S004: Cooper 2-Cycle Clean Burn ICEs, S/N: 48534, 48833, 48532 and 48531

Parameter	Permit	Limitations fo	or <b>each</b> engine	Compliance	Monitoring	
	Condition Number	Short Term	Long Term	Emission Factor	Method	Interval
NO <sub>X</sub>	1.1		82.1 tpy	0.96 lb/MMBtu	Recordkeeping & Calculation,	Monthly
CO			26.3 tpy	0.31 lb/MMBtu	Portable Flue Gas	Quarterly
VOC			36.2 tpy	0.42 lb/MMBtu	Analyzer	
Fuel Use	1.2		181.3 MMscf/yr		Recordkeeping	Monthly
Heat Content	1.3				ASTM Methods or in-Line Gas Chromatograph	Semi-Annual
Opacity	1.4	Not to exceed 20%			Fuel Restriction	Whenever Natural Gas is Used as Fuel

- 1.1 Emissions of Nitrogen Oxide, Carbon Monoxide and Volatile Organic Compound emissions **from each engine** shall not exceed the limitations stated above (Colorado Construction Permits 11WE631-1 through 4, as modified under the provisions of Section I, Condition 1.3 to remove the construction permit short-term emission limits). Compliance with the emission limitations shall be monitored as follows:
  - 1.1.1 Except as provided below, the emission factors listed above (from the manufacturer, converted to lb/MMBtu based on an engine heat rate of 7,250 Btu/hp-hr) have been approved by the Division and shall be used to calculate emissions from these engines as follows:

Monthly emissions shall be calculated **for each engine** by the end of the subsequent month using the above emission factors, the monthly fuel consumption and the lower heating value of the fuel, as specified in Condition 1.3, in the equation below:

tons/month =  $[EF (lbs/MMBtu)] \times [Fuel Use (MMscf/month)] \times [Heat Content of Fuel (MMBtu/MMscf)]$ 2000 lbs/ton

A twelve-month rolling total of emissions **from each engine** shall be maintained to monitor compliance with the annual limitation. Each month a new twelve month total shall be calculated using the previous twelve months' data.

If a reference method test is conducted under the provisions of Condition 1.1.2, and the results of the testing show that either the  $NO_X$  or CO emission rates/factors are greater than the emission rates/factors listed above, the permittee shall apply for a

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modification to this permit to reflect, at a minimum, the higher emission rates/factors within 60 days of the completion of the reference method test.

- 1.1.2 Portable Monitoring shall be conducted quarterly in accordance with the requirements in Condition 8.
- 1.2 Fuel use **for each engine** shall not exceed the annual limitation stated above (Colorado Construction Permits 11WE631-1 through 4, as modified under the provisions of Section I, Condition 1.3 to remove the short-term fuel use limits). Fuel use shall be recorded monthly using the facility fuel meter. Fuel consumption for each engine shall be allocated according to size, hours of operation and other records as necessary and recorded in a log to be made available to the Division upon request. A twelve month rolling total shall be maintained **for each engine** to monitor compliance with the annual limitation. Each month, a new twelve month total shall be calculated using the previous twelve months data.
- 1.3 The Btu content of the natural gas used to fuel these engines shall be verified semi-annually using the appropriate ASTM Methods or equivalent, if approved in advance by the Division. In lieu of collecting a sample, the Btu content of the natural gas may be determined using the in-line gas chromatograph to determine the gas composition and ASTM Method 3588 to calculate the Btu content. The Btu content of the gas shall be calculated using the average composition of the gas over the semi-annual period and assuming the composition of C<sub>6+</sub> constituents is as follows: 50% C<sub>6</sub>, 25% C<sub>7</sub> and 25% C<sub>8</sub>. The Btu content of the natural gas shall be based on the lower heating value of the fuel. Calculations of monthly emissions shall be made using the heat content derived from the most recent required analysis.
- 1.4 No owner or operator of a source shall allow or cause to be emitted into the atmosphere any air pollutant which is in excess of 20% opacity (Colorado Regulation No. 1, Section A.II.1). The opacity standard applies **to each engine**. In the absence of credible evidence to the contrary, compliance with the 20% opacity limit shall be presumed whenever natural gas is used as fuel for these engines.

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#### 2. WIC CG-1/S006 and WIC CG-2/S007: Cooper 2-Cycle Clean Burn ICEs, S/N: 48867 and 48868

Parameter	Permit	Limitations for <b>each</b> engine		Compliance	Monitor	ring
	Condition Number	Short Term	Long Term	Emission Factor	Method	Interval
$NO_X$	2.1	N/A	82.1 tpy	1.02 lb/MMBtu	Recordkeeping & Calculation	Monthly
CO		N/A	26.3 tpy	0.33 lb/MMBtu	Portable Flue Gas	Quarterly
VOC		N/A	36.2 tpy	0.45 lb/MMBtu	Analyzer	
Fuel Use	2.2		170 MMscf/yr		Recordkeeping	Monthly
Heat Content	2.3				ASTM Methods or In-Line Gas Chromatograph	Semi-Annual
Opacity	2.4	Not to exceed 20%			Fuel Restriction	Whenever Natural Gas is Used as Fuel

- 2.1 Nitrogen Oxide, Carbon Monoxide and Volatile Organic Compound emissions **from each engine** shall not exceed the limitations stated above (Colorado Construction Permits 13WE536-1, 2, as modified under the provisions of Section I, Condition 1.3 to remove the short-term emission limits). Compliance with the emission limitations shall be monitored as follows:
  - 2.1.1 Except as provided below, the emission factors listed above (from the manufacturer, converted to lb/MMBtu based on an engine heat rate of 6799.2 Btu/hp-hr) have been approved by the Division and shall be used to calculate emissions from these engines as follows:

Monthly emissions shall be calculated **for each engine** by the end of the subsequent month using the above emission factors, the monthly fuel consumption and the lower heating value of the fuel, as specified in Condition 2.3, in the equation below:

tons/month =  $[EF (lbs/MMBtu)] \times [Fuel Use (MMscf/month)] \times [Heat Content of Fuel (MMBtu/MMscf)]$ 2000 lbs/ton

A twelve-month rolling total of emissions **from each engine** shall be maintained to monitor compliance with the annual limitation. Each month a new twelve month total shall be calculated using the previous twelve months' data.

If a reference method test is conducted under the provisions of Condition 2.1.2, and the results of the testing show that either the  $NO_X$  or CO emission rates/factors are greater than the emission rates/factors listed above, the permittee shall apply for a modification to this permit to reflect, at a minimum, the higher emission rates/factors within 60 days of the completion of the reference method test.

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- 2.1.2 Portable Monitoring shall be conducted quarterly in accordance with the requirements in Condition 8.
- 2.2 Fuel use **for each engine** shall not exceed the annual limitations stated above (Colorado Construction Permits 13WE536-1, 2, as modified under the provisions of Section I, Condition 1.3 to remove the short-term fuel use limits). Fuel use shall be recorded monthly using the facility fuel meter. Fuel consumption for each engine shall be allocated according to size, hours of operation and other records as necessary and recorded in a log to be made available to the Division upon request. A twelve month rolling total shall be maintained **for each engine** to monitor compliance with the annual limitation. Each month, a new twelve month total shall be calculated using the previous twelve months data.
- 2.3 The Btu content of the natural gas used to fuel these engines shall be verified semi-annually using the appropriate ASTM Methods or equivalent, if approved in advance by the Division. In lieu of collecting a sample, the Btu content of the natural gas may be determined using the in-line gas chromatograph to determine the gas composition and ASTM Method 3588 to calculate the Btu content. The Btu content of the gas shall be calculated using the average composition of the gas over the semi-annual period and assuming the composition of C<sub>6+</sub> constituents is as follows: 50% C<sub>6</sub>, 25% C<sub>7</sub> and 25% C<sub>8</sub>. The Btu content of the natural gas shall be based on the lower heating value of the fuel. Calculations of monthly emissions shall be made using the heat content derived from the most recent required analysis.
- 2.4 No owner or operator of a source shall allow or cause to be emitted into the atmosphere any air pollutant which is in excess of 20% opacity (Colorado Regulation No. 1, Section A.II.1). The opacity standard applies **to each engine**. In the absence of credible evidence to the contrary, compliance with the 20% opacity limit shall be presumed whenever natural gas is used as fuel for these engines.

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#### 3. WIC CG-7301: Cooper 2 Cycle Clean Burn ICE, S/N: 46291

Parameter	Permit	Limita	ations	Compliance	Monitoring	
	Condition Number	Short Term	Long Term	Emission Factor	Method	Interval
NO <sub>X</sub>	3.1		39.5 tpy	0.48 lb/MMBtu	Recordkeeping & Calculation	Monthly
CO			39.0 tpy	0.48 lb/MMBtu	Portable Flue	Quarterly
VOC			30.0 tpy	0.36 lb/MMBtu	Gas Analyzer	
Fuel Use	3.2		173.8 MMscf/yr		Recordkeeping	Monthly
Heat Content	3.3				ASTM Methods or in-Line Gas Chromatograph	Semi-Annual
Opacity	3.4	Not to exceed 20%			Fuel Restriction	Whenever Natural Gas is Used as Fuel

- 3.1 Emissions of Nitrogen Oxide, Carbon Monoxide and Volatile Organic Compound emissions shall not exceed the limitations stated above (Colorado Construction Permit 97WE0032, as modified under the provisions of Section I, Condition 1.3 to remove the short-term emission limits). Compliance with the emission limitations shall be monitored as follows:
  - 3.1.1 Except as provided below, the emission factors listed above (from the manufacturer, converted to lb/MMBtu based on an engine heat rate of 6,950 Btu/hp-hr) have been approved by the Division and shall be used to calculate emissions from this engine as follows:

Monthly emissions shall be calculated by the end of the subsequent month using the above emission factors, the monthly fuel consumption and the lower heating value of the fuel, as specified in Condition 3.3, in the equation below:

tons/month = [EF (lbs/MMBtu)] x [Fuel Use (MMscf/month)] x [Heat Content of Fuel (MMBtu/MMscf)] 2000 lbs/ton

A twelve-month rolling total of emissions shall be maintained to monitor compliance with the annual limitation. Each month a new twelve month total shall be calculated using the previous twelve months' data.

If a reference method test is conducted under the provisions of Condition 3.1.2, and the results of the testing show that either the  $NO_X$  or CO emission rates/factors are greater than the emission rates/factors listed above, the permittee shall apply for a modification to this permit to reflect, at a minimum, the higher emission rates/factors within 60 days of the completion of the reference method test.

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- 3.1.2 Portable Monitoring shall be conducted quarterly in accordance with the requirements in Condition 8.
- 3.2 Fuel use for this engine shall not exceed the annual limitation stated above (Colorado Construction Permit 97WE0032, as modified under the provisions of Section I, Condition 1.3 to remove the short-term fuel use limit). Fuel use shall be recorded monthly using the facility fuel meter. Fuel consumption for each engine shall be allocated according to size, hours of operation and other records as necessary and recorded in a log to be made available to the Division upon request. A twelve month rolling total shall be maintained to monitor compliance with the annual limitation. Each month, a new twelve month total shall be calculated using the previous twelve months data.
- 3.3 The Btu content of the natural gas used to fuel this engine shall be verified semi-annually using the appropriate ASTM Methods or equivalent, if approved in advance by the Division. In lieu of collecting a sample, the Btu content of the natural gas may be determined using the in-line gas chromatograph to determine the gas composition and ASTM Method 3588 to calculate the Btu content. The Btu content of the gas shall be calculated using the average composition of the gas over the semi-annual period and assuming the composition of C<sub>6+</sub> constituents is as follows: 50% C<sub>6</sub>, 25% C<sub>7</sub> and 25% C<sub>8</sub>. The Btu content of the natural gas shall be based on the lower heating value of the fuel. Calculations of monthly emissions shall be made using the heat content derived from the most recent required analysis.
- 3.4 No owner or operator of a source shall allow or cause to be emitted into the atmosphere any air pollutant which is in excess of 20% opacity (Colorado Regulation No. 1, Section A.II.1). In the absence of credible evidence to the contrary, compliance with the 20% opacity limit shall be presumed whenever natural gas is used as fuel for this engine.

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#### 4. WIC CG-7401: Cooper 2 Cycle Clean Burn ICE, S/N: 48468

Parameter	Permit	Limita	tions	Compliance	Monitoring	
	Condition Number	Short Term	Long Term	Emission Factor	Method	Interval
$NO_X$	4.1		39.5 tpy	0.47 lb/MMBtu	Recordkeeping & Calculation Portable Flue Gas Analyzer	Monthly
CO			39.0 tpy	0.47 lb/MMBtu	Portable Flue	Quarterly
VOC			30.0 tpy	0.36 lb/MMBtu	Gas Analyzer	
Fuel Use	4.2		175.5 MMscf/yr		Recordkeeping	Monthly
Heat Content	4.3				ASTM Methods or In- Line Gas Chromatograph	Semi-Annual
Opacity	4.4	Not to exc	eed 20%		Fuel Restriction	Whenever Natural Gas is Used as Fuel

- 4.1 Emissions of Nitrogen Oxide, Carbon Monoxide and Volatile Organic Compound emissions shall not exceed the limitations stated above (Colorado Construction Permit 98WE0030, as modified under the provisions of Section I, Condition 1.3 to remove the short term emission limits). Compliance with the emission limitations shall be monitored as follows:
  - 4.1.1 Except as provided below, the emission factors listed above (from the manufacturer, converted to lb/MMBtu based on an engine heat rate of 6,975 Btu/hp-hr) have been approved by the Division and shall be used to calculate emissions from this engine as follows:

Monthly emissions shall be calculated by the end of the subsequent month using the above emission factors, the monthly fuel consumption and the lower heating value of the fuel, as specified in Condition 4.3, in the equation below:

 $tons/month = \underline{[EF (lbs/MMBtu)] \ x \ [Fuel \ Use \ (MMscf/month)] \ x \ [Heat \ Content \ of \ Fuel \ (MMBtu/MMscf)]} \\ 2000 \ lbs/ton$ 

A twelve-month rolling total of emissions shall be maintained to monitor compliance with the annual limitation. Each month a new twelve month total shall be calculated using the previous twelve months' data.

If a reference method test is conducted under the provisions of Condition 4.1.2, and the results of the testing show that either the  $NO_X$  or CO emission rates/factors are greater than the emission rates/factors listed above, the permittee shall apply for a

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modification to this permit to reflect, at a minimum, the higher emission rates/factors within 60 days of the completion of the reference method test.

- 4.1.2 Portable Monitoring shall be conducted quarterly in accordance with the requirements in Condition 8.
- 4.2 Fuel use for this engine shall not exceed the annual limitation stated above (Colorado Construction Permit 98WE0030, as modified under the provisions of Section I, Condition 1.3 to remove the short term fuel use limit). Fuel use shall be recorded monthly using the facility fuel meter. Fuel consumption for each engine shall be allocated according to size, hours of operation and other records as necessary and recorded in a log to be made available to the Division upon request. A twelve month rolling total shall be maintained to monitor compliance with the annual limitation. Each month, a new twelve month total shall be calculated using the previous twelve months data.
- 4.3 The Btu content of the natural gas used to fuel this engine shall be verified semi-annually using the appropriate ASTM Methods or equivalent, if approved in advance by the Division. In lieu of collecting a sample, the Btu content of the natural gas may be determined using the in-line gas chromatograph to determine the gas composition and ASTM Method 3588 to calculate the Btu content. The Btu content of the gas shall be calculated using the average composition of the gas over the semi-annual period and assuming the composition of C<sub>6+</sub> constituents is as follows: 50% C<sub>6</sub>, 25% C<sub>7</sub> and 25% C<sub>8</sub>. The Btu content of the natural gas shall be based on the lower heating value of the fuel. Calculations of monthly emissions shall be made using the heat content derived from the most recent required analysis.
- 4.4 No owner or operator of a source shall allow or cause to be emitted into the atmosphere any air pollutant which is in excess of 20% opacity (Colorado Regulation No. 1, Section A.II.1). In the absence of credible evidence to the contrary, compliance with the 20% opacity limit shall be presumed whenever natural gas is used as fuel for this engine.

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## 5. CG-7501/S008: Caterpillar, 4-Cycle Low $NO_X$ ICE, Equipped with Oxidation Catalyst S/N: 4ZS00310

Parameter	Permit	Limitations		Compliance	Monitor	ring
	Condition Number	Short Term	Long Term	Emission Factor	Method	Interval
BACT Requirements	5.1.				See Condit	ion 5.1.
$NO_X$	5.2	0.27 lb/MMBtu,	on a 1-hr average	0.27 lb/MMBtu	Recordkeeping &	Monthly
		N/A	14.3 tons/yr		Calculation	
СО		0.07 lb/MMBtu,	on a 1-hr average	0.07 lb/MMBtu	Portable Flue Gas	Quarterly
		N/A	3.7 tons/yr		Analyzer	
VOC		0.10 lb/MMBtu,	on a 1-hr average	0.10 lb/MMBtu		
		N/A	5.3 tons/yr			
Formaldehyde	5.3.	N/A	2.72 tons/yr	0.13 lb/MMBtu	Recordkeeping & Calculation	Monthly
Fuel Use	5.4	N/A	112 MMscf/yr		Recordkeeping	Monthly
Heat Content	5.5				ASTM Methods or In-Line Gas Chromatograph	Semi-Annual
Opacity	5.6	Not to exceed 20%			Fuel Restriction	Whenever Natural Gas is Used as Fuel
RICE MACT Requirements	5.7.	catalyst so that the	ions: 1.) Maintain e pressure drop does re than 2" of H <sub>2</sub> O at minus 10% from sured during the e test. <b>AND</b> RICE so that the o the catalyst is nal to 450 ° F and		See Condit	ion 5.7.
MACT General Provisions	5.8.				See Condit	ion 5.8.

This engine is subject to the requirements of the Prevention of Significant Deterioration (PSD) Program. Best Available Control Technology (BACT) shall be applied for control of Nitrogen Oxides (NO<sub>X</sub>), Carbon Monoxide (CO) and Volatile Organic Compounds (VOC). BACT has been determined to be as follows:

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- 5.1.1 BACT for  $NO_X$  has been determined to be lean burn combustion technology with emission limits as identified in Condition 5.2.1.1 (Colorado Construction Permit 03WE0184).
- 5.1.2 BACT for CO has been determined to be an oxidation catalyst with emission limits as identified in Condition 5.2.1.2 (Colorado Construction Permit 03WE0184).
- 5.1.3 BACT for VOC has been determined to be an oxidation catalyst with emission limits as identified in Condition 5.2.1.3 (Colorado Construction Permit 03WE0185).
- 5.2 Nitrogen Oxide (NO<sub>X</sub>), Carbon Monoxide (CO) and Volatile Organic Compound (VOC) emissions from this engine are subject to the following requirements:
  - 5.2.1 For purposes of BACT NO<sub>X</sub>, CO and VOC are subject to the following limitations (Colorado Construction Permit 03WE0184):
    - 5.2.1.1 NO<sub>X</sub> emissions shall not exceed 0.27 lb/MMBtu, on a 1-hour average.
    - 5.2.1.2 CO emissions shall not exceed 0.07 lb/MMBtu, on a 1-hour average.
    - 5.2.1.3 VOC emissions shall not exceed 0.10 lb/MMBtu, on a 1-hour average.

Portable monitoring shall be conducted quarterly in accordance with the requirements in Condition 8 to monitor compliance with the  $NO_X$  and CO BACT limits.

In the absence of credible evidence to the contrary compliance with the VOC BACT limits is presumed provided the requirements in Conditions 5.7 and 5.8 are met.

- 5.2.2 NO<sub>X</sub>, CO and VOC emissions shall not exceed the annual emission limitations stated above (Colorado Construction Permit 03WE0184) Compliance with the emission limitations shall be monitored as follows:
  - 5.2.2.1 Except as provided below, the emission factors listed above (from the manufacturer, converted to lb/MMBtu based on an engine heat rate of 6,620 Btu/hp-hr) have been approved by the Division and shall be used to calculate emissions from this engine as follows:

Monthly emissions shall be calculated by the end of the subsequent month using the above emission factors, the monthly fuel consumption and the lower heating value of the fuel, as specified in Condition 5.5, in the equation below:

tons/mo = [EF (lbs/MMBtu)] x [Fuel Use (MMscf/mo)] x [Heat Content of Fuel (MMBtu/MMscf)] 2000 lbs/ton

A twelve-month rolling total of emissions shall be maintained to monitor compliance with the annual limitation. Each month a new twelve month total shall be calculated using the previous twelve months' data.

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5.2.2.2 Portable Monitoring shall be conducted quarterly in accordance with the requirements in Condition 8.

Note that the second to the last paragraph in Condition 8 (apply for a permit modification within 60 days if the EPA Reference Test indicates that the emission rates/factors are greater than the emission rates/factors identified in the permit) does not apply to this emission unit.

5.3 Formaldehyde emissions shall not exceed the limitations stated above (Colorado Construction Permit 03WE0184). Monthly emissions from the engine shall be calculated by the end of the subsequent month using the above emission factors (from the manufacturer, converted to lb/MMBtu based on an engine heat rate of 6,620 Btu/hp-hr), the monthly fuel consumption and the lower heating value of the fuel, as specified in Condition 5.5, in the following equation:

tons/month =  $[EF (lbs/MMBtu)] \times [Fuel Use (MMscf/month)] \times [Heat Content of Fuel (MMBtu/MMscf)] 2000 lbs/ton$ 

Note that a control efficiency of 60% may be applied to the above equation provided the requirements in Condition 5.7 have been met.

A twelve-month rolling total of emissions shall be maintained to monitor compliance with the annual limitation. Each month a new twelve month total shall be calculated using the previous twelve months' data.

5.4 Fuel use shall not exceed the limitations stated above (Colorado Construction Permit 03WE0184). Fuel use shall be recorded monthly using the facility fuel meter. Fuel consumption for each engine shall be allocated according to size, hours of operation and other records as necessary and recorded in a log to be made available to the Division upon request.

A twelve month rolling total shall be maintained to monitor compliance with the annual limitation. Each month, a new twelve month total shall be calculated using the previous twelve months data.

- 5.5 The Btu content of the natural gas used to fuel this engine shall be verified semi-annually using the appropriate ASTM Methods or equivalent, if approved in advance by the Division. In lieu of collecting a sample, the Btu content of the natural gas may be determined using the in-line gas chromatograph to determine the gas composition and ASTM Method 3588 to calculate the Btu content. The Btu content of the gas shall be calculated using the average composition of the gas over the semi-annual period and assuming the composition of C<sub>6+</sub> constituents is as follows: 50% C<sub>6</sub>, 25% C<sub>7</sub> and 25% C<sub>8</sub>. The Btu content of the natural gas shall be based on the lower heating value of the fuel. Calculations of monthly emissions shall be made using the heat content derived from the most recent required analysis.
- No owner or operator of a source shall allow or cause to be emitted into the atmosphere any air pollutant which is in excess of 20% opacity (Colorado Regulation No. 1, Section A.II.1). In the absence of credible evidence to the contrary, compliance with the 20% opacity limit shall be presumed whenever natural gas is used as fuel for this engine.

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- 5.7 This engine is subject to the requirements in 40 CFR Part 63 Subpart ZZZZ, "National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines", as adopted by reference in Colorado Regulation No. 8, Part E, Section III, as specified in Condition 9 of this permit.
  - Note that the compliance date for this engine is August 16, 2004 as specified in 40 CFR Part 63 Subpart ZZZZ § 63.6595(a)(2).
- This engine is subject to the requirements in 40 CFR Part 63 Subpart A "General Provisions", as adopted by reference in Colorado Regulation No. 8, Part E, Section I as specified in 40 CFR Part 63 Subpart ZZZZ § 63.6665. These requirements include, but are not limited to the following:
  - 5.8.1 Prohibited activities and circumvention in § 63.4.
  - 5.8.2 Operation and maintenance requirements in § 63.6(e)(1).
  - 5.8.3 Startup, shutdown and malfunction plan requirements in § 63.6(e)(3).
  - 5.8.4 Performance test requirements in § 63.7.
  - 5.8.5 Monitoring requirements in § 63.8.
  - 5.8.6 Notification requirements in § 63.9.
  - 5.8.7 Recordkeeping requirements in § 63.10.

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#### 6. CG-7601/S009: Solar Taurus 60-7800S, Combustion Turbine, S/N: 1255T

Parameter	Permit	Limitations for each engine		Compliance	Monitor	ring
	Condition Number	Short Term	Long Term	Emission Factor	Method	Interval
BACT Requirements	6.1.				See Conditi	ion 6.1.
$NO_X$	6.2		O <sub>2</sub> , except as provided below:	See Condition 6.2.	Recordkeeping & Calculation	Monthly
		<u> </u>	F: 42 ppmvd at 15% O <sub>2</sub>			
			0 ppmvd at 15% O <sub>2</sub>			
		All limits o	n a 1-hr average			
		1.46 tons/mo	17.2 tons/yr			
СО			O <sub>2</sub> , except as provided below:		Portable Flue Gas Analyzer	Quarterly
			: 100 ppmvd at 15% O <sub>2</sub> 0 ppmvd at 15% O <sub>2</sub>			
			n a 1-hr average			
		1.54 tons/mo	18.1 tons/yr	1		
VOC		• •	O <sub>2</sub> , except as provided below:		See Condition 6.2.1.	
		$-20  ^{\circ}  \text{F} < \text{T} < 0  ^{\circ}  \text{J}$	F: 5 ppmvd at 15% O <sub>2</sub>			
			ppmvd at 15% O <sub>2</sub>			
			n a 1-hr average			
Fuel Use	6.3	43.6 MMscf/mo	513.7 MMscf/yr		Recordkeeping	Monthly
$SO_2$	6.4.	Which Contains L	% O <sub>2</sub> <b>OR</b> Use of Fuel Less than 0.8 Weight %		Fuel Restriction	Whenever Pipeline
			Sulfur			Quality Natural Gas
			os/MMBtu			is Used as
PM	6.5.	0.174	lbs/MMBtu			Fuel
Heat Content	6.6				ASTM Methods or In-Line Gas Chromatograph	Semi-Annual
Opacity	6.7.	Not to Exceed 20% Except as Provided for Below			Fuel Restriction	Whenever Pipeline
		Period or Periods Six (6) Minutes i	to Exceed 30%, for a Aggregating More than in any 60 Consecutive linutes			Quality Natural Gas is Used as Fuel
NSPS General Provisions	6.8.	winiutes			See Conditi	ion 6.8.

This turbine is subject to the requirements of the Prevention of Significant Deterioration (PSD) 6.1 Program. Best Available Control Technology (BACT) shall be applied for control of Nitrogen

Operating Permit Number: 95OPWE090 First Issued: 9/1/98 Oxides (NO<sub>X</sub>), Carbon Monoxide (CO) and Volatile Organic Compounds (VOC). BACT has been determined to be as follows:

- 6.1.1 BACT for NO<sub>X</sub> has been determined to be SoLoNO<sub>X</sub> II (dry low NO<sub>X</sub> (DLN)) combustion technology with emission limits as identified in Condition 6.2.1.1 (Colorado Construction Permit 03WE0185).
- BACT for CO has been determined to be good combustion practices with emission limits as identified in Condition 6.2.1.2 (Colorado Construction Permit 03WE0185).
- 6.1.3 BACT for VOC has been determined to be good combustion practices and use of pipeline quality natural gas as fuel with emission limits as identified in Condition 6.2.1.3 (Colorado Construction Permit 03WE0185).
- 6.2 Nitrogen Oxide (NO<sub>X</sub>), Carbon Monoxide (CO) and Volatile Organic Compound (VOC) emissions from this turbine are subject to the following requirements:
  - 6.2.1 For purposes of BACT NO<sub>X</sub>, CO and VOC are subject to the following limitations (Colorado Construction Permit 03WE0185). All limitations are at 15% O<sub>2</sub>, on a 1-hr average, a
    - 6.2.1.1 Except as provided for below, NO<sub>X</sub> emissions shall not exceed 15 ppmvd
      - a. When the ambient temperature is less than 0 ° F but greater than or equal to -20 ° F, NO<sub>X</sub> emissions shall not exceed 42 ppmvd.
      - b. When the ambient temperature is less than -20 ° F, NO<sub>X</sub> emissions shall not exceed 120 ppmvd.
    - 6.2.1.2 Except as provided for below, CO emissions shall not exceed 25 ppmvd.
      - a. When the ambient temperature is less than 0 ° F but greater than or equal to -20 ° F, CO emissions shall not exceed 100 ppmvd.
      - b. When the ambient temperature is less than -20 ° F, CO emissions shall not exceed 150 ppmvd.
    - 6.2.1.3 Except as provided for below, VOC emissions shall not exceed 3 ppmvd.
      - a. When the ambient temperature is less than 0  $^{\circ}$  F but greater than or equal to -20  $^{\circ}$  F, VOC emissions shall not exceed 5 ppmvd.
      - b. When the ambient temperature is less than -20 ° F, VOC emissions shall not exceed 8 ppmvd.
    - 6.2.1.4 The source shall keep monitor of the number of hours that the turbine operates when the ambient temperature meets the criteria in Conditions 6.2.1.1.a & b, 6.2.1.2.a & b and 6.2.1.3.a & b above. The hours meter on the transient pilot shall be used to monitor and record the number of hours the turbine runs when ambient temperatures are below 0 ° F. Hours of

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turbine operation when the ambient temperatures are below -20 ° F shall be recorded manually.

Portable monitoring shall be conducted quarterly in accordance with the requirements in Condition 8 to monitor compliance with the  $NO_X$  and CO BACT limits. At least annually, such portable monitoring shall be conducted at the temperatures specified in Conditions 6.2.1.1.a & b and 6.2.1.2.a & b above, unless ambient conditions or extended periods at those temperatures are not sufficient to conduct the monitoring. In the event that it is not feasible to conduct a portable monitoring test at the temperatures specified in Conditions 6.2.1.1.a & b and 6.2.1.2.a & b, due to ambient conditions or insufficient time, a written explanation shall be submitted with the annual compliance certification describing the reasons that portable monitoring was not conducted.

In the absence of credible evidence to the contrary, compliance with the VOC BACT limit is presumed whenever pipeline quality natural gas is used as fuel and good combustion practices are applied.

- 6.2.2 NO<sub>X</sub> and CO emissions shall not exceed the monthly and annual emission limitations stated above (Colorado Construction Permit 03WE0185) Compliance with the emission limitations shall be monitored as follows:
  - 6.2.2.1 Except as provided below, the emission factors listed in the table below (from the manufacturer, converted to lb/MMBtu based on the design heat input rate of 58 MMBtu/hr) have been approved by the Division and shall be used to calculate emissions from this turbine as follows:

$NO_X$	СО
T≥ 0 ° F:	T≥0°F:
0.063 lb/mmBtu	0.064 lb/mmBtu
$-20 \degree F \le T < 0 \degree F$ :	$-20 \text{ ° F} \leq T < 0 \text{ ° F}$ :
0.177 lb/mmBtu	0.257 lb/mmBtu
T < -20 ° F:	T < -20 ° F:
0.504 lb/mmBtu	0.384 lb/mmBtu

Monthly emissions shall be calculated by the end of the subsequent month using the above emission factors, the monthly fuel consumption and the lower heating value of the fuel, as specified in Condition 6.6, in the equation below:

 $tons/mo = \underbrace{[EF (lbs/MMBtu)] \ x \ [Fuel \ Use \ (MMscf/mo)] \ x \ [Heat \ Content \ of \ Fuel \ (MMBtu/MMscf)]}_{2000 \ lbs/ton}$ 

Compliance with the monthly emission limits shall be monitored by comparing the calculated monthly emissions with the monthly emission limitations. Compliance with the monthly emission limits must be monitored for one year following issuance of the revised construction

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permit [March 29, 2005]. After the first year of operation following issuance of the revised construction permit, the monthly limitations are no longer applicable.

A twelve-month rolling total of emissions shall be maintained to monitor compliance with the annual limitation. Each month a new twelve month total shall be calculated using the previous twelve months' data.

6.2.2.2 Portable Monitoring shall be conducted quarterly in accordance with the requirements in Condition 8.

Note that the second to the last paragraph in Condition 8 (apply for a permit modification within 60 days if the EPA Reference Test indicates that the emission rates/factors are greater than the emission rates/factors identified in the permit) does not apply to this emission unit.

Fuel use for the turbine shall not exceed the limitations stated above (Colorado Construction Permits 03WE0185). Fuel use shall be recorded monthly using the turbine's fuel meter.

Compliance with the monthly fuel use limit shall be monitored by comparing the recorded monthly fuel use with the monthly fuel use limitation. Compliance with the monthly fuel use limit must be monitored for one year following issuance of the revised construction permit [March 29, 2005]. After the first year of operation following issuance of the revised construction permit, the monthly limitation is no longer applicable.

A twelve month rolling total shall be maintained to monitor compliance with the annual limitation. Each month, a new twelve month total shall be calculated using the previous twelve months data.

- 6.4 Sulfur Dioxide (SO<sub>2</sub>) emissions shall not exceed the following limitations:
  - 6.4.1 The turbine shall meet one of the following requirements:
    - 6.4.1.1 Sulfur Dioxide ( $SO_2$ ) emissions from the turbine shall not exceed 150 ppmvd at 15%  $O_2$ ,

#### OR

No fuel, which contains sulfur in excess of 0.8 percent by weight, shall be used in this combustion turbine (Colorado Construction Permit 03WE0185 and 40 CFR Part 60 Subpart GG §§ 60.333(a) & (b), as adopted by reference in Colorado Regulation No. 6, Part A).

In the absence of credible evidence to the contrary, compliance with the above requirements is presumed when pipeline quality natural gas is used as fuel. The permittee shall maintain records demonstrating that the natural gas burned meets the definition of pipeline quality natural gas as defined in 40 CFR Part 72 (0.5 grains or less of total sulfur per 100 standard cubic feet). The demonstration shall be made using the

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gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel. These records shall be made available to the Division upon request.

- Sulfur Dioxide (SO<sub>2</sub>) emissions from the turbine shall not exceed 0.8 lbs/MMBtu, on a 3-hr rolling average (Colorado Regulation No. 1, Section VI.B.4.c.(i) and VI.B.2). In the absence of credible evidence to the contrary, compliance with the SO<sub>2</sub> limitations is presumed whenever pipeline quality natural gas is used as fuel in this turbine.
- 6.5 Particulate Matter (PM) emissions from the turbine shall not exceed the above limitations (Colorado Regulation No. 1, Section III.A.1). In the absence of credible evidence to the contrary, compliance with the particulate matter emission limit is presumed whenever pipeline quality natural gas is used as fuel in the turbine.

The numeric PM standard was determined using the design heat input for the turbine (58 MMBtu/hr) in the following equation:

 $PE = 0.5 \text{ x (FI)}^{-0.26}$ , where: PE = particulate standard in lbs/mmBtu

FI = fuel input in mmBtu/hr

- 6.6 The Btu content of the natural gas used to fuel this turbine shall be verified semi-annually using the appropriate ASTM Methods or equivalent, if approved in advance by the Division. In lieu of collecting a sample, the Btu content of the natural gas may be determined using the in-line gas chromatograph to determine the gas composition and ASTM Method 3588 to calculate the Btu content. The Btu content of the gas shall be calculated using the average composition of the gas over the semi-annual period and assuming the composition of C<sub>6+</sub> constituents is as follows: 50% C<sub>6</sub>, 25% C<sub>7</sub> and 25% C<sub>8</sub>. The Btu content of the natural gas shall be based on the lower heating value of the fuel. Calculations of monthly emissions shall be made using the heat content derived from the most recent required analysis.
- 6.7 The turbine is subject to the following opacity requirements:
  - 6.7.1 No owner or operator of a source shall allow or cause to be emitted into the atmosphere any air pollutant which is in excess of 20% opacity (Colorado Regulation No. 1, Section A.II.1).
  - No owner or operator of a source shall allow or cause to be emitted into the atmosphere any air pollutant resulting from start-up which is in excess of 30% opacity for a period or periods aggregating more than six (6) minutes in any sixty (60) consecutive minutes (Colorado Regulation No. 1, Section II.A.4).

In the absence of credible evidence to the contrary, compliance with the above opacity requirements shall be presumed whenever natural gas is used as fuel for this turbine.

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- 6.8 This turbine is subject to the NSPS Subpart A, General Provisions requirements (Colorado Regulation No. 6, Part A, Federal 40 CFR 60.1 through 60.19). Specifically, this unit is subject to the following:
  - No article, machine, equipment or process shall be used to conceal an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gasses discharged to the atmosphere. (40 CFR § 60.12)
  - Records of startups, shutdowns, and malfunctions shall be maintained, as required under 40 CFR § 60.7.
  - At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. (40 CFR § 60.11(d))

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# 7. CG-7701/S010: Caterpillar, 4-Cycle Low $NO_X$ ICE, Equipped with Oxidation Catalyst S/N: BEN00254

Parameter	Permit	Limitations		Compliance	Monitoring	
	Condition Number	Short Term	Long Term	Emission Factor	Method	Interval
BACT Requirements	7.1.				See Condition 7.1.	
$NO_X$	7.2	0.27 lb/MMBtu, on a 1-hr average		0.27 lb/MMBtu	Recordkeeping &	Monthly
		1.8 tons/mo	21.2 tons/yr		Calculation	
CO		0.07 lb/MMBtu, on a 1-hr average		0.07 lb/MMBtu	Portable Flue Gas	Quarterly
		0.44 tons/mo	5.2 tons/yr		Analyzer	
VOC	]	0.10 lb/MMBtu, on a 1-hr average		0.10 lb/MMBtu		
		0.63 tons/mo	7.4 tons/yr			
Formaldehyde	7.3.	0.32 tons/mo	3.8 tons/yr	0.13 lb/MMBtu	Recordkeeping & Calculation	Monthly
Fuel Use	7.4	13.3 MMscf/mo	157 MMscf/yr		Recordkeeping	Monthly
Heat Content	7.5				ASTM Methods or In-Line Gas Chromatograph	Semi-Annual
Opacity	7.6	Not to exceed 20%			Fuel Restriction	Whenever Natural Gas is Used as Fuel
RICE MACT Requirements	7.7.	Emission Limitation: Reduce CO Emissions by 93%			See Condition 7.7.	
		Operating Limitations: 1.) Maintain catalyst so that the pressure drop does not change by more than 2" of H <sub>2</sub> O at 100% load plus or minus 10% from pressure drop measured during the initial performance test. <b>AND</b> 2.) Maintain the RICE so that the inlet temperature to the catalyst is greater than or equal to 450 ° F and less than or equal to 1350 ° F.				
MACT General Provisions	7.8.				See Condition 7.8.	

7.1 This engine is subject to the requirements of the Prevention of Significant Deterioration (PSD) Program. Best Available Control Technology (BACT) shall be applied for control of Nitrogen Oxides (NO<sub>X</sub>), Carbon Monoxide (CO) and Volatile Organic Compounds (VOC). BACT has been determined to be as follows:

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- 7.1.1 BACT for  $NO_X$  has been determined to be lean burn combustion technology with emission limits as identified in Condition 7.2.1.1 (Colorado Construction Permit 03WE0912).
- 7.1.2 BACT for CO has been determined to be an oxidation catalyst with emission limits as identified in Condition 7.2.1.2 (Colorado Construction Permit 03WE0912).
- 7.1.3 BACT for VOC has been determined to be an oxidation catalyst with emission limits as identified in Condition 7.2.1.3 (Colorado Construction Permit 03WE0912).
- 7.2 Nitrogen Oxide (NO<sub>X</sub>), Carbon Monoxide (CO) and Volatile Organic Compound (VOC) emissions from this engine are subject to the following requirements:
  - 7.2.1 For purposes of BACT NO<sub>X</sub>, CO and VOC are subject to the following limitations (Colorado Construction Permit 03WE0912):
    - 7.2.1.1 NO<sub>X</sub> emissions shall not exceed 0.27 lb/MMBtu, on a 1-hour average.
    - 7.2.1.2 CO emissions shall not exceed 0.07 lb/MMBtu, on a 1-hour average.
    - 7.2.1.3 VOC emissions shall not exceed 0.10 lb/MMBtu, on a 1-hour average.

Portable monitoring shall be conducted quarterly in accordance with the requirements in Condition 8 to monitor compliance with the  $NO_X$  and CO BACT limits.

In the absence of credible evidence to the contrary compliance with the VOC BACT limits is presumed provided the requirements in Conditions 7.7 and 7.8 are met.

- 7.2.2 NO<sub>X</sub>, CO and VOC emissions shall not exceed the monthly and annual emission limitations stated above (Colorado Construction Permit 03WE0912) Compliance with the emission limitations shall be monitored as follows:
  - 7.2.2.1 Except as provided below, the emission factors listed above (from the manufacturer, converted to lb/MMBtu based on an engine heat rate of 6,581 Btu/hp-hr) have been approved by the Division and shall be used to calculate emissions from this engine as follows:

Monthly emissions shall be calculated by the end of the subsequent month using the above emission factors, the monthly fuel consumption and the lower heating value of the fuel, as specified in Condition 7.5, in the equation below:

tons/mo = [EF (lbs/MMBtu)] x [Fuel Use (MMscf/mo)] x [Heat Content of Fuel (MMBtu/MMscf)] 2000 lbs/ton

Compliance with the monthly emission limits shall be monitored by comparing the calculated monthly emissions with the monthly emission limits must be

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monitored for one year following the startup [December 15, 2004]. After the first year of operation following installation of the catalyst, the monthly limitations are no longer applicable.

A twelve-month rolling total of emissions shall be maintained to monitor compliance with the annual limitation. Each month a new twelve month total shall be calculated using the previous twelve months' data.

7.2.2.2 Portable Monitoring shall be conducted quarterly in accordance with the requirements in Condition 8.

Note that the second to the last paragraph in Condition 8 (apply for a permit modification within 60 days if the EPA Reference Test indicates that the emission rates/factors are greater than the emission rates/factors identified in the permit) does not apply to this emission unit.

7.3 Formaldehyde emissions shall not exceed the limitations stated above (Colorado Construction Permit 03WE0912). Monthly emissions from the engine shall be calculated by the end of the subsequent month using the above emission factors (from the manufacturer, converted to lb/MMBtu based on an engine heat rate of 6,581 Btu/hp-hr), the monthly fuel consumption and the lower heating value of the fuel, as specified in Condition 7.5, in the following equation:

tons/month =  $[EF (lbs/MMBtu)] \times [Fuel Use (MMscf/month)] \times [Heat Content of Fuel (MMBtu/MMscf)] 2000 lbs/ton$ 

Note that a control efficiency of 60% may be applied to the above equation provided the requirements in Condition 6.8 have been met.

Compliance with the monthly emission limits shall be monitored by comparing the calculated monthly emissions with the monthly emission limits compliance with the monthly emission limits must be monitored for one year following startup [December 15, 2004]. After the first year of operation the monthly limitations are no longer applicable.

A twelve-month rolling total of emissions shall be maintained to monitor compliance with the annual limitation. Each month a new twelve month total shall be calculated using the previous twelve months' data.

7.4 Fuel use shall not exceed the limitations stated above (Colorado Construction Permit 03WE0912). Fuel use shall be recorded monthly using the facility fuel meter. Fuel consumption for each engine shall be allocated according to size, hours of operation and other records as necessary and recorded in a log to be made available to the Division upon request.

Compliance with the monthly fuel use limit shall be monitored by comparing the allocated monthly fuel use with the monthly fuel use limitation. Compliance with the monthly fuel use limit must be monitored for one year following startup [December 15, 2004]. After the first year of operation the monthly limitation is no longer applicable.

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A twelve month rolling total shall be maintained to monitor compliance with the annual limitation. Each month, a new twelve month total shall be calculated using the previous twelve months data.

- 7.5 The Btu content of the natural gas used to fuel this engine shall be verified semi-annually using the appropriate ASTM Methods or equivalent, if approved in advance by the Division. In lieu of collecting a sample, the Btu content of the natural gas may be determined using the in-line gas chromatograph to determine the gas composition and ASTM Method 3588 to calculate the Btu content. The Btu content of the gas shall be calculated using the average composition of the gas over the semi-annual period and assuming the composition of C<sub>6+</sub> constituents is as follows: 50% C<sub>6</sub>, 25% C<sub>7</sub> and 25% C<sub>8</sub>. The Btu content of the natural gas shall be based on the lower heating value of the fuel. Calculations of monthly emissions shall be made using the heat content derived from the most recent required analysis.
- 7.6 No owner or operator of a source shall allow or cause to be emitted into the atmosphere any air pollutant which is in excess of 20% opacity (Colorado Regulation No. 1, Section A.II.1). In the absence of credible evidence to the contrary, compliance with the 20% opacity limit shall be presumed whenever natural gas is used as fuel for this engine.
- 7.7 This engine is subject to the requirements in 40 CFR Part 63 Subpart ZZZZ, "National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines", as adopted by reference in Colorado Regulation No. 8, Part E, Section III, as specified in Condition 9 of this permit.
  - Note that the compliance date for this engine is the startup date (December 15, 2004) as specified in 40 CFR Part 63 Subpart ZZZZ § 63.6595(a)(3).
- 7.8 This engine is subject to the requirements in 40 CFR part 63 Subpart A "General Provisions", as adopted by reference in Colorado Regulation No. 8, Part E, Section I as specified in 40 CFR Part 63 Subpart ZZZZ § 63.6665. These requirements include, but are not limited to the following:
  - 7.8.1 Prohibited activities and circumvention in § 63.4.
  - 7.8.2 Operation and maintenance requirements in  $\S$  63.6(e)(1).
  - 7.8.3 Startup, shutdown and malfunction plan requirements in § 63.6(e)(3).
  - 7.8.4 Performance test requirements in § 63.7.
  - 7.8.5 Monitoring requirements in § 63.8.
  - 7.8.6 Notification requirements in § 63.9.
  - 7.8.7 Recordkeeping requirements in § 63.10.

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#### 8. Portable Monitoring (12/14/05 version)

Emission measurements of nitrogen oxides  $(NO_X)$  and carbon monoxide (CO) shall be conducted quarterly using a portable flue gas analyzer. At least one calendar month shall separate the quarterly tests. Note that if a unit is operated for less than 100 hrs in any quarterly period, then the portable monitoring requirements do not apply.

A portable monitor testing protocol shall be submitted for Division approval at least thirty (30) calendar days prior to the initial test. The protocol shall include examples of all calculations to be used to determine the emission rates and factors set forth below. Written approval of the protocol must be received prior to any testing. Prior Division-approved protocols for either the facility or the owner/operator may be used for subsequent tests without additional Division review or approval. For the initial test, calibration of the analyzer shall be conducted according to manufacturer's instructions.

Results of the portable flue gas analyzer tests shall be used to monitor the compliance status of a unit. For comparison with an annual or short term emission limit, the results of the tests shall be converted to a lb/hr basis and multiplied by the allowable operating hours in the month or year (whichever applies) in order to monitor compliance. If a source is not limited in its hours of operation the test results will be multiplied by the maximum number of hours in the month or year (8760), whichever applies.

If the portable flue gas analyzer results indicate compliance with both the  $NO_X$  and CO emission limitations, in the absence of credible evidence to the contrary, the source may certify that the unit is in compliance with both the  $NO_X$  and CO emission limitations for the relevant time period.

For comparison with the emission rates/factors set forth in the permit, the results of the tests shall be converted to the same units as the emission rate/factor.

An exceedance of either the NO<sub>X</sub> or CO emission limitation or either the NO<sub>X</sub> or CO emission rates/factors during the initial portable flue gas analyzer test shall require a subsequent portable analyzer test within 14 operating days of the initial test. Calibration gases shall be used to calibrate the portable analyzer for all tests conducted subsequent to the initial test. Note that if the unit is operated for any period of time during a day, then that day counts as an operating day.

If the subsequent portable flue gas analyzer results fail to indicate compliance with either the  $NO_X$  or CO emission limitations (using the calculation scheme described above) or fail to verify that both the  $NO_X$  and CO emission rates/factors are less than or equal to those set forth in the permit, the source will notify the Division in writing within 10 calendar days of the end of the 14 day period. Results of all such testing and the associated calculations shall be submitted to the Division with the notification. The source will be required to conduct EPA Reference Test Methods (identified as Reference Method 7E and Reference Method 10 (40C.F.R. Part 60 Appendix A)) or other test methods or procedures acceptable to the Division within 45 calendar days of the end of the 14 day period allowed for the portable flue gas analyzer testing. A compliance testing protocol shall be submitted for Division approval at least thirty (30) calendar days prior to the test. The protocol shall include examples of all calculations to be used to determine the emission rates set forth below. Written approval of the protocol must be received prior to any testing. The Division shall be notified at least 30 calendar days prior to

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the EPA Reference Test date, so that it may choose whether to observe the testing. Results of all Reference Tests and the associated calculations required below shall be submitted to the Division within 30 calendar days of the test. Note that any of the above timelines may be revised upon Division approval.

For comparison with an annual or short term emission limit, the results of the EPA Reference Tests shall be converted to a lb/hr basis and multiplied by the allowable operating hours in the month or year (whichever applies) in order to monitor compliance. If a source is not limited in its hours of operation the test results will be multiplied by the maximum number of hours in the month or year (8760), whichever applies.

If the EPA Reference Tests fail to demonstrate compliance with either the  $NO_X$  or CO emission limitations and in the absence of credible evidence to the contrary, the unit will be considered to be out of compliance from the date of the initial portable flue gas analyzer test until the unit is taken off line.

For comparison with the emission rates/factors, the emission rates/factors determined by the EPA Reference Test and approved by the Division shall be converted to the same units as the emission rates/factors in the permit.

If the EPA Reference Test shows that either the NO<sub>X</sub> or CO emission rates/factors are greater than the relevant ones set forth in the permit, the permittee shall apply for a modification to this permit to reflect, at a minimum, the higher emission rate/factor within 60 days of the completion of the reference method test.

Results of all tests conducted shall be kept on site and made available to the Division upon request.

#### 9. Reciprocating Internal Combustion Engine (RICE) MACT Requirements.

"National Emission Standards for Stationary Reciprocating Internal Combustion Engines" in 40 CFR Part 63 Subpart ZZZZ, as adopted by reference in Colorado Regulation No. 8, Part E, Section III, requirements, include but, but are not limited to the following:

#### 9.1 General Requirements:

- 9.1.1 This unit must be in compliance with the emission limitations and operating limitations in Conditions 9.2 and 9.3 at all times, except during periods of startup, shutdown and malfunction (40 CFR Part 63 Subpart ZZZZ § 63.6605(a))
- 9.1.2 This unit, including air pollution control and monitoring equipment, shall be operated and maintained in a manner consistent with good air pollution control practices for minimizing emissions at all time, including during startup, shutdown and malfunction (40 CFR Part 63 Subpart ZZZZ § 63.6605(b)).
- 9.2 <u>Emission Limitations:</u> Carbon Monoxide (CO) emissions from this engine must be reduced by 93 percent or more (40 CFR Part 63 Subpart ZZZZ § 63.6600(b), Table 2a, item 2).

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- 9.3 Operating Limitations: This unit is subject to the following operating limitations (40 CFR Part 63 Subpart ZZZZ § 63.6600(b), Table 2b, item1):
  - 9.3.1 The catalyst must be maintained so that the pressure drop across the catalyst does not change my more than two inches of water at 100 percent load plus or minus ten percent from the pressure drop across the catalyst that was measured during the initial performance test; and
  - 9.3.2 The temperature of the stationary RICE exhaust shall be maintained so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F.
- 9.4 <u>Initial Testing and Compliance Requirements:</u> An initial performance test shall be conducted within 180 days of the compliance date to measure the O<sub>2</sub> and CO at the inlet and outlet of the control device using a portable CO and O<sub>2</sub> analyzer in accordance with the requirements in ASTM D6522-00 (incorporated by reference, see § 63.14). The CO concentration must be at 15% O<sub>2</sub> on a dry basis. Measurements to determine O<sub>2</sub> must be made at the same time as the measurements for CO concentration (40 CFR Part 63 Subpart ZZZZ § 63.6610(a), Table 4, item 1).
- 9.5 <u>Subsequent Performance Test Requirements:</u> Subsequent performance tests shall be conducted semi-annually. After compliance has been demonstrated for two consecutive tests, the frequency of semi-annual tests may be reduced to annually. If the results of any subsequent annual performance test indicates the stationary RICE is not in compliance with the CO emission limitations, or you deviate from any of your operating limitations, you must resume semi-annual performance tests (40 CFR Part 63 Subpart ZZZZ § 63.6615, Table 3, item 1).
- 9.6 <u>Performance Tests and Other Procedures:</u> Each of the performance tests conducted under Conditions 9.4 and 9.5 are subject to the following requirements:
  - 9.6.1 Each performance test must be conducted according to the requirements in § 63.7(e)(1) and under the conditions specified in Condition 9.4. The test must be conducted at any load condition plus or minus 10 percent of 100 percent load (40 CFR Part 63 Subpart ZZZZ § 63.6620(b)).
  - 9.6.2 You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in § 63.7(e)(1) (40 CFR Part 63 Subpart ZZZZ § 63.6620(c)).
  - 9.6.3 You must conduct three separate test runs for each performance test required in Conditions 9.4 and 9.5 as specified in § 63.7(e)(3). Each test run must last at least 1 hour (40 CFR Part 63 Subpart ZZZZ § 63.6620(d)).
  - 9.6.4 You must use the equation below to determine compliance with the percent reduction requirements (40 CFR Part 63 Subpart ZZZZ § 63.6620(e)(1)).

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$$\frac{C_i - C_o}{C_i} \times 100 = R$$

Where:

 $C_i$  = concentration of CO at the control device inlet

 $C_0$  = concentration of CO at the control device outlet, and

R = percent reduction of CO emissions.

- 9.6.5 You must normalize the carbon monoxide (CO) concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen, or an equivalent percent of carbon dioxide (CO<sub>2</sub>). If pollutant concentrations are to be corrected to 15 percent oxygen and CO<sub>2</sub> concentration is measured in lieu of oxygen concentration, a CO<sub>2</sub> correction factor is needed. Calculate the CO<sub>2</sub> correction factor in accordance with the requirements in §§ 63.6620(e)(2)(i) and (ii)) (40 CFR Part 63 Subpart ZZZZ § 63.6620(e)(2)).
- 9.6.6 The engine percent load during a performance test must be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load in a specific application. A written report of the average percent load determination must be included in the notification of compliance status. The following information must be included in the written report: the engine model number, the engine manufacturer, the year of purchase, the manufacturer's site-rated brake horsepower, the ambient temperature, pressure, and humidity during the performance test, and all assumptions that were made to estimate or calculate percent load during the performance test must be clearly explained. If measurement devices such as flow meters, kilowatt meters, beta analyzers, stain gauges, etc. are used, the model number of the measurement device, and an estimate of its accuracy in percentage of true value must be provided (40 CFR Part 63 Subpart ZZZZ § 63.6620(i))
- 9.7 <u>Monitoring, Installation, Operation and Maintenance Requirements:</u> You must install, maintain and operate a continuous parametric monitoring system (CPMS) to continuously monitor the catalyst inlet temperature in accordance with the requirements in § 63.8 (40 CFR Part 63 Subpart ZZZZ § 63.6625(b), Table 5, item 1)
- 9.8 <u>Demonstrate Initial Compliance with Emissions and Operating Limitations:</u> Initial compliance shall be demonstrated as follows:
  - 9.8.1 The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction and a CPMS to continuously monitor catalyst inlet temperature has been installed in accordance with the requirements in Condition 9.7 (40 CFR Part 63 Subpart ZZZZ §§ 63.6630(a), Table 5, items 1.i and ii).

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- 9.8.2 You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test (40 CFR Part 63 Subpart ZZZZ § 63.6630(b), Table 5, item 1.iii)
- 9.8.3 You must submit the Notification of Compliance status containing the results of the initial compliance demonstration according to the requirements in Condition 9.11.4 (40 CFR Part 63 Subpart ZZZZ § 63.6630(c))
- 9.9 <u>Monitoring and Collecting Data for Continuous Compliance</u>: Data must be monitored and collected in accordance with the following (40 CFR Part 63 Subpart ZZZZ § 63.6635(a)):
  - 9.9.1 Except for monitor malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must monitor continuously at all times that the stationary RICE is operating (40 CFR Part 63 Subpart ZZZZ § 63.6635(b)).
  - 9.9.2 You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. You must however, use all the valid data collected during all other periods (40 CFR Part 63 Subpart ZZZZ § 63.6635(c)).
- 9.10 <u>Demonstrating Continuous Compliance with the Emission and Operating Limitations:</u> Continuous compliance with the emission and operating limitations shall be determined as follows:
  - 9.10.1 You must demonstrate continuous compliance with each emission and operating limitation in Conditions 9.2 and 9.3 as follows:
    - 9.10.1.1 Conducting subsequent performance tests as specified in Condition 9.5 and demonstrating the required CO reduction (40 CFR Part 63 Subpart ZZZZ § 63.6640(a), Table 6, item 1.i).
    - 9.10.1.2 Collecting the catalyst inlet temperature data according to Condition 9.7 and reducing these data to 4-hour rolling averages and maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature (40 CFR Part 63 Subpart ZZZZ § 63.6640(a), Table 6, items 1.ii thru iv).
    - 9.10.1.3 Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the initial performance test (40 CFR Part 63 Subpart ZZZZ § 63.6640(a), Table 6, item 1.v).
  - 9.10.2 You must report each instance in which you did not meet each emission limitation or operating limitation in Conditions 9.2 and 9.3. These instances are deviations from the emission and operating limitations in Conditions 9.2 and 9.3. These deviations must be reported according to the requirements in Conditions 9.12.3 and 9.12.4. If

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you change your catalyst, you must reestablish the values of the operating parameters measured during the initial performance test. When you reestablish the values of your operating parameters, you must also conduct a performance test to demonstrate that you are meeting the required emission limitation applicable to your stationary RICE (40 CFR Part 63 Subpart ZZZZ § 63.6640(b)).

- 9.10.3 During periods of startup, shutdown, and malfunction, you must operate in accordance with your startup, shutdown, and malfunction plan (40 CFR Part 63 Subpart ZZZZ § 63.6640(c)).
- 9.10.4 Consistent with §§ 63.6(e) and 63.7(e)(1), deviations from the emission or operating limitations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the Division's satisfaction that you were operating in accordance with the startup, shutdown and malfunction plan. For new, reconstructed, and rebuilt stationary RICE, deviations from the emission or operating limitations that occur during the first 200 hours of operation from engine startup (engine burn-in period) are not violations. Rebuilt stationary RICE means a stationary RICE that has been rebuilt as that term is defined in 40 CFR § 94.11(a) (40 CFR Part 63 Subpart ZZZZ § 63.6640(d)).
- 9.10.5 You must also report each instance in which you did not meet the requirements in Table 8 of 40 CFR Part ZZZZ (40 CFR Part 63 Subpart ZZZZ § 63.6640(e)).

Table 8 is the list of provisions in 40 CFR Part 63 Subpart A (general provisions) that apply to stationary RICE. The general provisions for each engine are indicated in Section II, Conditions 5.9 (E008) and 7.9 (E010).

# 9.11 What Notifications to Submit and When:

- 9.11.1 You must submit all of the notifications in §§ 63.7(b) and (c), 63.8(e), (f)(4), and (f)(6), 63.9(b) through (e), and (g) and (h) that apply to you by the dates specified (40 CFR Part 63 Subpart ZZZZ § 63.6645(a)).
- 9.11.2 As specified in § 63.9(b)(2), if you start up your stationary RICE before the effective date of 40 CFR Part 63 Subpart ZZZZ, you must submit an Initial Notification not later than December 13, 2004 (40 CFR Part 63 Subpart ZZZZ § 63.6645(b)).
- 9.11.3 If you are required to conduct a performance test, you must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required in § 63.7(b)(1) (40 CFR Part 63 Subpart ZZZZ § 63.6645(e)).
- 9.11.4 If you are required to conduct a performance test or other initial compliance demonstration as specified in Conditions 9.4 and 9.8, you must submit the Notification of Compliance Status before the close of the business on the 30<sup>th</sup> day following the completion of the initial compliance demonstration

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# 9.12 What Reports to Submit and When:

# **Compliance Reports**

- 9.12.1 Unless the Division has approved a different schedule for submission of reports under § 63.10(a), you must submit Compliance Reports in accordance with the following requirements:
  - 9.12.1.1 The first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.6595 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in § 63.6595 (40 CFR Part 63 Subpart ZZZZ § 63.6650(b)(1)).
  - 9.12.1.2 The first Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified for your affected source in §63.6595 (40 CFR Part 63 Subpart ZZZZ § 63.6650(b)(2)).
  - 9.12.1.3 Each subsequent Compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31 (40 CFR Part 63 Subpart ZZZZ § 63.6650(b)(3)).
  - 9.12.1.4 Each subsequent Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period (40 CFR Part 63 Subpart ZZZZ § 63.6650(b)(4)).
  - 9.12.1.5 For each stationary RICE that is subject to permitting regulations pursuant to 40 CFR part 70 or 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6 (a)(3)(iii)(A) or 40 CFR 71.6 (a)(3)(iii)(A), you may submit the first and subsequent Compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (4) of this section (40 CFR Part 63 Subpart ZZZZ § 63.6650(b)(5)).
- 9.12.2 The Compliance Reports must include the information in §§ 63.6650(c)(1) thru (6) (40 CFR Part 63 Subpart ZZZZ § 63.6650(c)).
- 9.12.3 For each deviation from any emission or operating limitation that occurs for a stationary RICE where you are using a CMS to comply with the emission and operating limitations in this subpart you must include information in §§ 63.6650(c)(1) thru (4) and (e)(1) thru (12) (40 CFR Part 63 Subpart ZZZZ § 63.6650(e)).

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9.12.4 Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6 (a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Condition 9.12 along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in this subpart, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority (40 CFR Part 63 Subpart ZZZZ § 63.6650(f)).

## Startup, Shutdown and Malfunction Report

- 9.12.5 A startup, shutdown and malfunction report shall be submitted if actions addressing the startup, shutdown and malfunction were inconsistent with your startup, shutdown and malfunction plan during the reporting period. Such reporting shall contain the following:
  - 9.12.5.1 Actions taken for the event shall be reported by fax or telephone within 2 working days after starting the actions inconsistent with the plan (40 CFR Part 63 Subpart ZZZZ §§ 63.6650(a) and (b), Table 7, item 2.a); and
  - The information specified in § 63.10(d)(5)(ii) shall be submitted by letter 9.12.5.2 within 7 working days after the end of the event unless you have alternative arrangements with the Division (40 CFR Part 63 Subpart ZZZZ §§ 63.6650(a) and (b), Table 7, item 2.b).

#### What Records to Keep: 9.13

- 9.13.1 A copy of each notification and report that you submitted to comply with this Condition 9, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in §63.10(b)(2)(xiv) (40 CFR Part 63 Subpart ZZZZ § 63.6655(a)(1)).
- 9.13.2 The records in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction (40 CFR Part 63 Subpart ZZZZ § 63.6655(a)(2)).
- 9.13.3 Records of performance tests and performance evaluations as required in §63.10(b)(2)(viii) (40 CFR Part 63 Subpart ZZZZ § 63.6655(a)(3)).
- 9.13.4 For each CPMS you must keep the following requirements (40 CFR Part 63 Subpart ZZZZ §§ 63.6655(b)(1) thru (3)):
  - 9.13.4.1 Records described in § 63.10(b)(2)(vi) through (xi).

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- 9.13.4.2 Previous (i.e., superseded) versions of the performance evaluation plan as required in § 63.8(d)(3).
- 9.13.4.3 Requests for alternatives to the relative accuracy test for CEMS or CPMS as required in § 63.8(f)(6)(i), if applicable.
- 9.13.5 You must keep the records required in Condition 9.10.1 to show continuous compliance with each emission or operating limitation that applies to you (40 CFR Part 63 Subpart ZZZZ § 63.6655(d)).

# 9.14 Form and Length of Recordkeeping:

- 9.14.1 Your records must be in a form suitable and readily available for expeditious review according to § 63.10(b)(1) (40 CFR Part 63 Subpart ZZZZ § 63.6660(a)).
- 9.14.2 As specified in § 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record (40 CFR Part 63 Subpart ZZZZ § 63.6660(b)).
- 9.14.3 You must keep each record readily accessible in hard copy or electronic form on-site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to § 63.10(b)(1). You can keep the records off-site for the remaining 3 years (40 CFR Part 63 Subpart ZZZZ § 63.6660(c)).

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### **SECTION III - Permit Shield**

Regulation No. 3, 5 CCR 1001-5, Part C, §§ I.A.4, V.D., & XIII.B and § 25-7-114.4(3)(a), C.R.S.

# 1. Specific Conditions

Based on the information available to the Division and supplied by the applicant, the following parameters and requirements have been specifically identified as non-applicable to the facility to which this permit has been issued. This shield does not protect the source from any violations that occurred prior to or at the time of permit issuance. In addition, this shield does not protect the source from any violations that occur as a result of any modification or reconstruction on which construction commenced prior to permit issuance.

Emission Unit Description & Number	Non-Applicable Requirement	Justification
All	Regulation No. 1, Section III - Particulate Emissions	Emission units do not fall under the regulated categories for Particulate Emissions.
All	Regulation No. 1, Section IV - Continuous Monitoring Requirements for New or Existing Sources	Emission units do not fall under the source categories required to perform continuous monitoring.
All	Regulation No. 3, Part D, Section V – Non-attainment areas	Facility is not located in a non-attainment area for any pollutant.
All	Regulation No. 6, Part A, - Federal Source Performance Standards, Subpart A - General Provisions	Emission units are not affected sources.
All	Regulation No. 6, Part A - Federal New Source Performance Standards, Subpart K, Ka, Kb - Storage Vessels for Petroleum Liquids	No emission units commenced construction after June 11, 1973 that met the applicability provisions of the standards.
All	Regulation No. 6, Part A - Federal New Source Performance Standards, Subpart KKK - Equipment leaks of VOC from Onshore Natural Gas Processing Plants	Emission units are not affected sources.
All	Regulation No. 6, Part A - Federal New Source Performance Standards, Subpart LLL - SO <sub>2</sub> Emissions from Onshore Natural Gas Processing Plants	Emission units are not affected sources.
All	Regulation No. 8, Part A - NESHAPS, 40 CFR Part 61, Subpart J - Equipment Leaks of Benzene	Emissions are less than 10 weight percent benzene.
All	Regulation No. 8, Part A - NESHAPS, 40 CFR Part 61, Subpart V - Equipment Leaks (VHAP)	Emissions are less than 10 weight percent volatile hazardous air pollutants.

# 2. General Conditions

Compliance with this Operating Permit shall be deemed compliance with all applicable requirements specifically identified in the permit and other requirements specifically identified in the permit as not applicable to the source. This permit shield shall not alter or affect the following:

2.1 The provisions of §§ 25-7-112 and 25-7-113, C.R.S., or § 303 of the federal act, concerning enforcement in cases of emergency;

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- 2.2 The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
- 2.3 The applicable requirements of the federal Acid Rain Program, consistent with § 408(a) of the federal act;
- 2.4 The ability of the Air Pollution Control Division to obtain information from a source pursuant to § 25-7-111(2)(I), C.R.S., or the ability of the Administrator to obtain information pursuant to § 114 of the federal act;
- 2.5 The ability of the Air Pollution Control Division to reopen the Operating Permit for cause pursuant to Regulation No. 3, Part C, § XIII.
- 2.6 Sources are not shielded from terms and conditions that become applicable to the source subsequent to permit issuance.

#### **3. Streamlined Conditions**

The following applicable requirements have been subsumed within this operating permit using the pertinent streamlining procedures approved by the U.S. EPA. For purposes of the permit shield, compliance with the listed permit conditions will also serve as a compliance demonstration for purposes of the associated subsumed requirements.

Permit Condition	Streamlined (Subsumed) Requirements
Section II, Condition 6.2.1.1	40 CFR Part 60 Subpart GG § 60.332(b) (as adopted by reference in Regulation No. 6, Part A, Subpart GG) [Nitrogen Oxide emissions shall not exceed 172.8 ppmvd at 15% oxygen and ISO standard day conditions]
Section II, Condition 6.4.1	40 CFR Part 60 Subpart GG § 60.334(h)(3), as adopted by reference in Colorado Regulation No. 6, Part A [source shall monitor the sulfur content of the fuel]
Section II, Condition 6.5	Colorado Regulation No. 6, Part B, Section II.C.2 [particulate matter emissions shall not exceed 0.5(FI) <sup>-0.26</sup> lbs/MMBtu] – <b>State Only Requirement</b>
Section II, Condition 6.7	Colorado Regulation No. 6, Part B, Section II.C.3 [opacity of emissions shall not exceed 20%] – State Only Requirement
Section II, Condition 6.4.2	Colorado Regulation No. 6, Part B, Section II.D.3.a [SO <sub>2</sub> emissions shall not exceed 0.8 lbs/MMBtu] – <b>State Only Requirement</b>

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# **SECTION IV - General Permit Conditions**

#### 1. Administrative Changes

#### Regulation No. 3, 5 CCR 1001-5, Part A, § III.

The permittee shall submit an application for an administrative permit amendment to the Division for those permit changes that are described in Regulation No. 3, Part A, § I.B.1. The permittee may immediately make the change upon submission of the application to the Division.

#### 2. Certification Requirements

## Regulation No. 3, 5 CCR 1001-5, Part C, §§ III.B.9., V.C.16.a.& e. and V.C.17.

- a. Any application, report, document and compliance certification submitted to the Air Pollution Control Division pursuant to Regulation No. 3 or the Operating Permit shall contain a certification by a responsible official of the truth, accuracy and completeness of such form, report or certification stating that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.
- b. All compliance certifications for terms and conditions in the Operating Permit shall be submitted to the Air Pollution Control Division at least annually unless a more frequent period is specified in the applicable requirement or by the Division in the Operating Permit.
- c. Compliance certifications shall contain:
  - (i) the identification of each permit term and condition that is the basis of the certification;
  - (i) the compliance status of the source;
  - (ii) whether compliance was continuous or intermittent;
  - (iii) method(s) used for determining the compliance status of the source, currently and over the reporting period; and
  - (iv) such other facts as the Air Pollution Control Division may require to determine the compliance status of the source.
- d. All compliance certifications shall be submitted to the Air Pollution Control Division and to the Environmental Protection Agency at the addresses listed in Appendix D of this Permit.
- e. If the permittee is required to develop and register a risk management plan pursuant to § 112(r) of the federal act, the permittee shall certify its compliance with that requirement; the Operating Permit shall not incorporate the contents of the risk management plan as a permit term or condition.

#### 3. Common Provisions

#### Common Provisions Regulation, 5 CCR 1001-2 §§ II.A., II.B., II.C., II, E., II.F., II.I, and II.J

a. To Control Emissions Leaving Colorado

When emissions generated from sources in Colorado cross the State boundary line, such emissions shall not cause the air quality standards of the receiving State to be exceeded, provided reciprocal action is taken by the receiving State.

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## b. Emission Monitoring Requirements

The Division may require owners or operators of stationary air pollution sources to install, maintain, and use instrumentation to monitor and record emission data as a basis for periodic reports to the Division.

### c. Performance Testing

The owner or operator of any air pollution source shall, upon request of the Division, conduct performance test(s) and furnish the Division a written report of the results of such test(s) in order to determine compliance with applicable emission control regulations.

Performance test(s) shall be conducted and the data reduced in accordance with the applicable reference test methods unless the Division:

- specifies or approves, in specific cases, the use of a test method with minor changes in methodology;
- (ii) approves the use of an equivalent method;
- (iii) approves the use of an alternative method the results of which the Division has determined to be adequate for indicating where a specific source is in compliance; or
- (iv) waives the requirement for performance test(s) because the owner or operator of a source has demonstrated by other means to the Division's satisfaction that the affected facility is in compliance with the standard.
   Nothing in this paragraph shall be construed to abrogate the Commission's or Division's authority to require testing under the Colorado Revised Statutes, Title 25, Article 7, and pursuant to regulations promulgated by the Commission.

Compliance test(s) shall be conducted under such conditions as the Division shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Division such records as may be necessary to determine the conditions of the performance test(s). Operations during period of startup, shutdown, and malfunction shall not constitute representative conditions of performance test(s) unless otherwise specified in the applicable standard.

The owner or operator of an affected facility shall provide the Division thirty days prior notice of the performance test to afford the Division the opportunity to have an observer present. The Division may waive the thirty day notice requirement provided that arrangements satisfactory to the Division are made for earlier testing.

The owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:

- (i) Sampling ports adequate for test methods applicable to such facility;
- (ii) Safe sampling platform(s);
- (iii) Safe access to sampling platform(s); and
- (iv) Utilities for sampling and testing equipment.

Each performance test shall consist of at least three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic mean of results of at least three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the owner or operator's control, compliance may, upon the Division's approval, be determined using the arithmetic mean of the results of the two other runs.

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Nothing in this section shall abrogate the Division's authority to conduct its own performance test(s) if so warranted.

### d. Upset Conditions and Breakdowns

Upset conditions, as defined, shall not be deemed to be in violation of the Colorado regulations, provided that the Division is notified as soon as possible, but no later than two (2) hours after the start of the next working day, followed by a written notice to the Division explaining the cause of the occurrence and that proper action has been or is being taken to correct the conditions causing the violation and to prevent such excess emission in the future.

#### e. Circumvention Clause

A person shall not build, erect, install, or use any article, machine, equipment, condition, or any contrivance, the use of which, without resulting in a reduction in the total release of air pollutants to the atmosphere, reduces or conceals an emission which would otherwise constitute a violation of this regulation. No person shall circumvent this regulation by using more openings than is considered normal practice by the industry or activity in question.

### f. Compliance Certifications

For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in the Colorado State Implementation Plan, nothing in the Colorado State Implementation Plan shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed. Evidence that has the effect of making any relevant standard or permit term more stringent shall not be credible for proving a violation of the standard or permit term.

When compliance or non-compliance is demonstrated by a test or procedure provided by permit or other applicable requirement, the owner or operator shall be presumed to be in compliance or non-compliance unless other relevant credible evidence overcomes that presumption.

### g. Affirmative Defense Provision for Excess Emissions During Startup and Shutdown

Note that until such time as the U.S. EPA approves this provision into the Colorado State Implementation Plan (SIP), it shall apply only to State-Only permit terms and conditions and shall be enforceable only by the State.

An affirmative defense is provided to owners and operators for civil penalty actions for excess emissions during periods of startup and shutdown. To establish the affirmative defense and to be relieved of a civil penalty in any action to enforce an applicable requirement, the owner or operator of the facility must meet the notification requirements below in a timely manner and prove by a preponderance of the evidence that:

- (i) The periods of excess emissions that occurred during startup and shutdown were short and infrequent and could not have been prevented through careful planning and design;
- (ii) The excess emissions were not part of a recurring pattern indicative of inadequate design, operation or maintenance;
- (iii) If the excess emissions were caused by a bypass (an intentional diversion of control equipment), then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
- (iv) The frequency and duration of operation in startup and shutdown periods were minimized to the maximum extent practicable;
- (v) All possible steps were taken to minimize the impact of excess emissions on ambient air quality;
- (vi) All emissions monitoring systems were kept in operation (if at all possible);

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- (vii) The owner or operator's actions during the period of excess emissions were documented by properly signed, contemporaneous operating logs or other relevant evidence; and,
- (viii) At all times, the facility was operated in a manner consistent with good practices for minimizing emissions. This subparagraph is intended solely to be a factor in determining whether an affirmative defense is available to an owner or operator, and shall not constitute an additional applicable requirement.

The owner or operator of the facility experiencing excess emissions during startup and shutdown shall notify the Division verbally as soon as possible, but no later than two (2) hours after the start of the next working day, and shall submit written quarterly notification following the initial occurrence of the excess emissions. The notification shall address the criteria set forth above.

The Affirmative Defense Provision contained in this section shall not be available to claims for injunctive relief.

The Affirmative Defense Provision does not apply to State Implementation Plan provisions or other requirements that derive from new source performance standards or national emissions standards for hazardous air pollutants, or any other federally enforceable performance standard or emission limit with an averaging time greater than twenty-four hours. In addition, an affirmative defense cannot be used by a single source or small group of sources where the excess emissions have the potential to cause an exceedance of the ambient air quality standards or Prevention of Significant Deterioration (PSD) increments.

In making any determination whether a source established an affirmative defense, the Division shall consider the information within the notification required above and any other information the Division deems necessary, which may include, but is not limited to, physical inspection of the facility and review of documentation pertaining to the maintenance and operation of process and air pollution control equipment.

#### 4. Compliance Requirements

#### Regulation No. 3, 5 CCR 1001-5, Part C, §§ III.C.9., V.C.11. & 16.d. and § 25-7-122.1(2), C.R.S.

- a. The permittee must comply with all conditions of the Operating Permit. Any permit noncompliance relating to federally-enforceable terms or conditions constitutes a violation of the federal act, as well as the state act and Regulation No. 3. Any permit noncompliance relating to state-only terms or conditions constitutes a violation of the state act and Regulation No. 3, shall be enforceable pursuant to state law, and shall not be enforceable by citizens under § 304 of the federal act. Any such violation of the federal act, the state act or regulations implementing either statute is grounds for enforcement action, for permit termination, revocation and reissuance or modification or for denial of a permit renewal application.
- b. It shall not be a defense for a permittee in an enforcement action or a consideration in favor of a permittee in a permit termination, revocation or modification action or action denying a permit renewal application that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.
- c. The permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of any request by the permittee for a permit modification, revocation and reissuance, or termination, or any notification of planned changes or anticipated noncompliance does not stay any permit condition, except as provided in §§ X. and XI. of Regulation No. 3, Part C.
- d. The permittee shall furnish to the Air Pollution Control Division, within a reasonable time as specified by the Division, any information that the Division may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Division copies of records required to be kept by the permittee, including information claimed to be confidential. Any information subject to a claim of confidentiality shall be specifically identified and submitted separately from information not subject to the claim.

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- e. Any schedule for compliance for applicable requirements with which the source is not in compliance at the time of permit issuance shall be supplemental, and shall not sanction noncompliance with, the applicable requirements on which it is based.
- f. For any compliance schedule for applicable requirements with which the source is not in compliance at the time of permit issuance, the permittee shall submit, at least every 6 months unless a more frequent period is specified in the applicable requirement or by the Air Pollution Control Division, progress reports which contain the following:
  - (i) dates for achieving the activities, milestones, or compliance required in the schedule for compliance, and dates when such activities, milestones, or compliance were achieved; and
  - (ii) an explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.
- g. The permittee shall not knowingly falsify, tamper with, or render inaccurate any monitoring device or method required to be maintained or followed under the terms and conditions of the Operating Permit.

### 5. Emergency Provisions

# Regulation No. 3, 5 CCR 1001-5, Part C, § VII

An emergency means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed the technology-based emission limitation under the permit due to unavoidable increases in emissions attributable to the emergency. "Emergency" does not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error. An emergency constitutes an affirmative defense to an enforcement action brought for noncompliance with a technology-based emission limitation if the permittee demonstrates, through properly signed, contemporaneous operating logs, or other relevant evidence that:

- a. an emergency occurred and that the permittee can identify the cause(s) of the emergency;
- b. the permitted facility was at the time being properly operated;
- c. during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and
- d. the permittee submitted oral notice of the emergency to the Air Pollution Control Division no later than noon of the next working day following the emergency, and followed by written notice within one month of the time when emissions limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

This emergency provision is in addition to any emergency or upset provision contained in any applicable requirement.

#### 6. Emission Standards for Asbestos

# Regulation No. 8, 5 CCR 1001-10, Part B

The permittee shall not conduct any asbestos abatement activities except in accordance with the provisions of Regulation No. 8, Part B, "emission standards for asbestos."

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#### 7. **Emissions Trading, Marketable Permits, Economic Incentives**

## Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.13.

No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are specifically provided for in the permit.

#### 8. **Fee Payment**

#### C.R.S. §§ 25-7-114.1(6) and 25-7-114.7

- The permittee shall pay an annual emissions fee in accordance with the provisions of C.R.S. § 25-7-114.7. A 1% per month late payment fee shall be assessed against any invoice amounts not paid in full on the 91st day after the date of invoice, unless a permittee has filed a timely protest to the invoice amount.
- b. The permittee shall pay a permit processing fee in accordance with the provisions of C.R.S. § 25-7-114.7. If the Division estimates that processing of the permit will take more than 30 hours, it will notify the permittee of its estimate of what the actual charges may be prior to commencing any work exceeding the 30 hour limit.
- The permittee shall pay an APEN fee in accordance with the provisions of C.R.S. § 25-7-114.1(6) for each APEN or c. revised APEN filed.

#### 9. **Fugitive Particulate Emissions**

#### Regulation No. 1, 5 CCR 1001-3, § III.D.1.

The permittee shall employ such control measures and operating procedures as are necessary to minimize fugitive particulate emissions into the atmosphere, in accordance with the provisions of Regulation No. 1, § III.D.1.

#### 10. **Inspection and Entry**

# Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.16.b.

Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Air Pollution Control Division, or any authorized representative, to perform the following:

- enter upon the permittee's premises where an Operating Permit source is located, or emissions-related activity is a. conducted, or where records must be kept under the terms of the permit;
- b. have access to, and copy, at reasonable times, any records that must be kept under the conditions of the permit;
- inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), c. practices, or operations regulated or required under the Operating Permit;
- d. sample or monitor at reasonable times, for the purposes of assuring compliance with the Operating Permit or applicable requirements, any substances or parameters.

#### 11. **Minor Permit Modifications**

#### Regulation No. 3, 5 CCR 1001-5, Part C, §§ X. & XI.

The permittee shall submit an application for a minor permit modification before making the change requested in the application. The permit shield shall not extend to minor permit modifications.

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#### 12. New Source Review

## Regulation No. 3, 5 CCR 1001-5, Part B

The permittee shall not commence construction or modification of a source required to be reviewed under the New Source Review provisions of Regulation No. 3, Part B, without first receiving a construction permit.

#### 13. No Property Rights Conveyed

#### Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.11.d.

This permit does not convey any property rights of any sort, or any exclusive privilege.

#### 14. Odor

#### Regulation No. 2, 5 CCR 1001-4, Part A

As a matter of state law only, the permittee shall comply with the provisions of Regulation No. 2 concerning odorous emissions.

# 15. Off-Permit Changes to the Source

### Regulation No. 3, 5 CCR 1001-5, Part C, § XII.B.

The permittee shall record any off-permit change to the source that causes the emissions of a regulated pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from the change, including any other data necessary to show compliance with applicable ambient air quality standards. The permittee shall provide contemporaneous notification to the Air Pollution Control Division and to the Environmental Protection Agency at the addresses listed in Appendix D of this Permit . The permit shield shall not apply to any off-permit change.

### 16. Opacity

# Regulation No. 1, 5 CCR 1001-3, §§ I., II.

The permittee shall comply with the opacity emissions limitation set forth in Regulation No. 1, §§ I.-II.

#### 17. Open Burning

#### Regulation No. 9, 5 CCR 1001-11

The permittee shall obtain a permit from the Division for any regulated open burning activities in accordance with provisions of Regulation No. 9.

### 18. Ozone Depleting Compounds

### Regulation No. 15, 5 CCR 1001-17

The permittee shall comply with the provisions of Regulation No. 15 concerning emissions of ozone depleting compounds. Sections I., II.C., II.D., III. IV., and V. of Regulation No. 15 shall be enforced as a matter of state law only.

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## 19. Permit Expiration and Renewal

## Regulation No. 3, 5 CCR 1001-5, Part C, §§ III.B.6., IV.C., V.C.2.

- a. The permit term shall be five (5) years. The permit shall expire at the end of its term. Permit expiration terminates the permittee's right to operate unless a timely and complete renewal application is submitted.
- b. Applications for renewal shall be submitted at least twelve months, but not more than 18 months, prior to the expiration of the Operating Permit. An application for permit renewal may address only those portions of the permit that require revision, supplementing, or deletion, incorporating the remaining permit terms by reference from the previous permit. A copy of any materials incorporated by reference must be included with the application.

#### 20. Portable Sources

#### Regulation No. 3, 5 CCR 1001-5, Part C, § II.D.

Portable Source permittees shall notify the Air Pollution Control Division at least 10 days in advance of each change in location.

#### 21. Prompt Deviation Reporting

#### Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.7.b.

The permittee shall promptly report any deviation from permit requirements, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken. Unless required by a permit term or condition to report deviations on a more frequent basis, "prompt" reporting shall entail submission of reports of deviations from permit requirements every six (6) months in accordance with paragraph 22.d. below. "Prompt reporting" does not constitute an exception to the requirements of "Emergency Provisions" for the purpose of avoiding enforcement actions.

### 22. Record Keeping and Reporting Requirements

# Regulation No. 3, 5 CCR 1001-5, Part A, § II.; Part C, §§ V.C.6., V.C.7.

- a. Unless otherwise provided in the source specific conditions of this Operating Permit, the permittee shall maintain compliance monitoring records that include the following information:
  - (i) date, place as defined in the Operating Permit, and time of sampling or measurements;
  - (ii) date(s) on which analyses were performed;
  - (iii) the company or entity that performed the analysis;
  - (iv) the analytical techniques or methods used;
  - (v) the results of such analysis; and
  - (vi) the operating conditions at the time of sampling or measurement.
- b. The permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report or application. Support information, for this purpose, includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the Operating Permit. With prior approval of the Air Pollution Control Division, the permittee may maintain any of the above records in a computerized form.

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- c. Permittees must retain records of all required monitoring data and support information for the most recent twelve (12) month period, as well as compliance certifications for the past five (5) years on-site at all times. A permittee shall make available for the Air Pollution Control Division's review all other records of required monitoring data and support information required to be retained by the permittee upon 48 hours advance notice by the Division.
- d. The permittee shall submit to the Air Pollution Control Division all reports of any required monitoring at least every six (6) months, unless an applicable requirement, the enhanced monitoring rule, or the Division requires submission on a more frequent basis. All instances of deviations from any permit requirements must be clearly identified in such reports.
- e. The permittee shall file an Air Pollutant Emissions Notice ("APEN") prior to constructing, modifying, or altering any facility, process, activity which constitutes a stationary source from which air pollutants are or are to be emitted, unless such source is exempt from the APEN filing requirements of Regulation No. 3, Part A, § II.D. A revised APEN shall be filed annually whenever a significant change in emissions, as defined in Regulation No. 3, Part A, § II.C.2., occurs; whenever there is a change in owner or operator of any facility, process, or activity; whenever new control equipment is installed; whenever a different type of control equipment replaces an existing type of control equipment; whenever a permit limitation must be modified; or before the APEN expires. An APEN is valid for a period of five years. The five-year period recommences when a revised APEN is received by the Air Pollution Control Division. Revised APENs shall be submitted no later than 30 days before the five-year term expires. Permittees submitting revised APENs to inform the Division of a change in actual emission rates must do so by April 30 of the following year. Where a permit revision is required, the revised APEN must be filed along with a request for permit revision. APENs for changes in control equipment must be submitted before the change occurs. Annual fees are based on the most recent APEN on file with the Division.

#### 23. Reopenings for Cause

### Regulation No. 3, 5 CCR 1001-5, Part C, § XIII.

- a. The Air Pollution Control Division shall reopen, revise, and reissue Operating Permits; permit reopenings and reissuance shall be processed using the procedures set forth in Regulation No. 3, Part C, § III., except that proceedings to reopen and reissue permits affect only those parts of the permit for which cause to reopen exists.
- b. The Division shall reopen a permit whenever additional applicable requirements become applicable to a major source with a remaining permit term of three or more years, unless the effective date of the requirements is later than the date on which the permit expires, or unless a general permit is obtained to address the new requirements; whenever additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program; whenever the Division determines the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or whenever the Division determines that the permit must be revised or revoked to assure compliance with an applicable requirement.
- c. The Division shall provide 30 days' advance notice to the permittee of its intent to reopen the permit, except that a shorter notice may be provided in the case of an emergency.
- d. The permit shield shall extend to those parts of the permit that have been changed pursuant to the reopening and reissuance procedure.

### **24.** Section 502(b)(10) Changes

## Regulation No. 3, 5 CCR 1001-5, Part C, § XII.A.

The permittee shall provide a minimum 7-day advance notification to the Air Pollution Control Division and to the Environmental Protection Agency at the addresses listed in Appendix D of this Permit. The permittee shall attach a copy of each such notice given to its Operating Permit.

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## 25. Severability Clause

#### Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.10.

In the event of a challenge to any portion of the permit, all emissions limits, specific and general conditions, monitoring, record keeping and reporting requirements of the permit, except those being challenged, remain valid and enforceable.

#### 26. Significant Permit Modifications

#### Regulation No. 3, 5 CCR 1001-5, Part C, § III.B.2.

The permittee shall not make a significant modification required to be reviewed under Regulation No. 3, Part B ("Construction Permit" requirements) without first receiving a construction permit. The permittee shall submit a complete Operating Permit application or application for an Operating Permit revision for any new or modified source within twelve months of commencing operation, to the address listed in Item 1 in Appendix D of this permit. If the permittee chooses to use the "Combined Construction/Operating Permit" application procedures of Regulation No. 3, Part C, then the Operating Permit must be received prior to commencing construction of the new or modified source.

# 27. Special Provisions Concerning the Acid Rain Program

### Regulation No. 3, 5 CCR 1001-5, Part C, §§ V.C.1.b. & 8

- a. Where an applicable requirement of the federal act is more stringent than an applicable requirement of regulations promulgated under Title IV of the federal act, 40 Code of Federal Regulations (CFR) Part 72, both provisions shall be incorporated into the permit and shall be federally enforceable.
- b. Emissions exceeding any allowances that the source lawfully holds under Title IV of the federal act or the regulations promulgated thereunder, 40 CFR Part 72, are expressly prohibited.

#### 28. Transfer or Assignment of Ownership

#### Regulation No. 3, 5 CCR 1001-5, Part C, § II.C.

No transfer or assignment of ownership of the Operating Permit source will be effective unless the prospective owner or operator applies to the Air Pollution Control Division on Division-supplied Administrative Permit Amendment forms, for reissuance of the existing Operating Permit. No administrative permit shall be complete until a written agreement containing a specific date for transfer of permit, responsibility, coverage, and liability between the permittee and the prospective owner or operator has been submitted to the Division.

#### 29. Volatile Organic Compounds

### Regulation No. 7, 5 CCR 1001-9, §§ III & V.

a. For sources located in an ozone non-attainment area or the Denver Metro Attainment Maintenance Area, all storage tank gauging devices, anti-rotation devices, accesses, seals, hatches, roof drainage systems, support structures, and pressure relief valves shall be maintained and operated to prevent detectable vapor loss except when opened, actuated, or used for necessary and proper activities (e.g. maintenance). Such opening, actuation, or use shall be limited so as to minimize vapor loss.

Detectable vapor loss shall be determined visually, by touch, by presence of odor, or using a portable hydrocarbon analyzer. When an analyzer is used, detectable vapor loss means a VOC concentration exceeding 10,000 ppm. Testing shall be conducted as in Regulation No. 7, Section VIII.C.3.

Except when otherwise provided by Regulation No. 7, all volatile organic compounds, excluding petroleum liquids, transferred to any tank, container, or vehicle compartment with a capacity exceeding 212 liters (56 gallons), shall be

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transferred using submerged or bottom filling equipment. For top loading, the fill tube shall reach within six inches of the bottom of the tank compartment. For bottom-fill operations, the inlet shall be flush with the tank bottom.

- b. The permittee shall not dispose of volatile organic compounds by evaporation or spillage unless Reasonably Available Control Technology (RACT) is utilized.
- c. No owner or operator of a bulk gasoline terminal, bulk gasoline plant, or gasoline dispensing facility as defined in Colorado Regulation No. 7, Section VI, shall permit gasoline to be intentionally spilled, discarded in sewers, stored in open containers, or disposed of in any other manner that would result in evaporation.

#### 30. Wood Stoves and Wood burning Appliances

# Regulation No. 4, 5 CCR 1001-6

The permittee shall comply with the provisions of Regulation No. 4 concerning the advertisement, sale, installation, and use of wood stoves and wood burning appliances.

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# OPERATING PERMIT APPENDICES

- A INSPECTION INFORMATION
- **B-MONITORING AND PERMIT DEVIATION REPORT**
- C COMPLIANCE CERTIFICATION REPORT
- **D-NOTIFICATION ADDRESSES**
- **E PERMIT ACRONYMS**
- F PERMIT MODIFICATIONS

# \*DISCLAIMER:

None of the information found in these Appendices shall be considered to be State or Federally enforceable, except as otherwise provided in the permit, and is presented to assist the source, permitting authority, inspectors, and citizens.

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# **APPENDIX A - Inspection Information**

### **Directions to Plant:**

Cheyenne Compressor Station is located approximately 4 miles north of Rockport in Weld County on Highway 85.

# **Safety Equipment Required:**

Eye Protection Hard Hat Safety Shoes Hearing Protection

# **Facility Plot Plan:**

Figure 1 (following page) shows the plot plan as submitted on April 20, 2005 to support the source's Title V Renewal Operating Permit Application.

## **List of Insignificant Activities:**

The following list of insignificant activities was provided by the source to assist in the understanding of the facility layout. Since there is no requirement to update such a list, activities may have changed since the last filing.

Insignificant activities and/or sources of emissions as submitted in the application are as follows:

Fugitive VOC emissions from equipment leaks (formerly addressed in Colorado Construction Permit 96WE039)

Venting of natural gas prior to engine overhaul

Natural Gas Boiler, Cleaver Brooks Model CB-700-200, 8.4 MMBtu/hr

Natural Gas Boiler, Cleaver Brooks Model L- 75511, 1.0 MMBtu/hr

Emergency Generators, 319934, 41500012

Tank 1, 12,600 gal, Ambitrol

Tank 2, 8,000 gal, Oil

Tank 3, 8,820 gal, Ambitrol

Tank 4, 1,000 gal, Gasoline

Tank 5, 8,450 gal, Ambitrol

Tank 6, 1,000 gal, Oil

Tank 7, 10,000 gal, Oil

Tank 8, 8,820 gal, Ambitrol

Snowblower

Weed Wacker

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#### APPENDIX B

# **Reporting Requirements and Definitions**

with codes ver 12/21/04

Please note that, pursuant to 113(c)(2) of the federal Clean Air Act, any person who knowingly:

- (A) makes any false material statement, representation, or certification in, or omits material information from, or knowingly alters, conceals, or fails to file or maintain any notice, application, record, report, plan, or other document required pursuant to the Act to be either filed or maintained (whether with respect to the requirements imposed by the Administrator or by a State);
- (B) fails to notify or report as required under the Act; or
- (C) falsifies, tampers with, renders inaccurate, or fails to install any monitoring device or method required to be maintained or followed under the Act shall, upon conviction, be punished by a fine pursuant to title 18 of the United States Code, or by imprisonment for not more than 2 years, or both. If a conviction of any person under this paragraph is for a violation committed after a first conviction of such person under this paragraph, the maximum punishment shall be doubled with respect to both the fine and imprisonment.

The permittee must comply with all conditions of this operating permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

The Part 70 Operating Permit program requires three types of reports to be filed for all permits. All required reports must be certified by a responsible official.

# **Report #1: Monitoring Deviation Report** (due at least every six months)

For purposes of this operating permit, the Division is requiring that the monitoring reports are due every six months unless otherwise noted in the permit. All instances of deviations from permit monitoring requirements must be clearly identified in such reports.

For purposes of this operating permit, monitoring means any condition determined by observation, by data from any monitoring protocol, or by any other monitoring which is required by the permit as well as the recordkeeping associated with that monitoring. This would include, for example, fuel use or process rate monitoring, fuel analyses, and operational or control device parameter monitoring.

## **Report #2: Permit Deviation Report (must be reported "promptly")**

In addition to the monitoring requirements set forth in the permits as discussed above, each and every requirement of the permit is subject to deviation reporting. The reports must address deviations from permit requirements, including those attributable to upset conditions and malfunctions as defined in this Appendix, the

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probable cause of such deviations, and any corrective actions or preventive measures taken. All deviations from any term or condition of the permit are required to be summarized or referenced in the annual compliance certification.

For purposes of this operating permit, "upset" shall refer to both emergency conditions and upsets. Additional discussion on these conditions is provided later in this Appendix.

For purposes of this operating permit, the Division is requiring that the permit deviation reports are due every six months unless otherwise noted in the permit. Where the underlying applicable requirement contains a definition of prompt or otherwise specifies a time frame for reporting deviations, that definition or time frame shall govern. For example, quarterly Excess Emission Reports required by an NSPS or Regulation No. 1, Section IV.

In addition to the monitoring deviations discussed above, included in the meaning of deviation for the purposes of this operating permit are any of the following:

- (1) A situation where emissions exceed an emission limitation or standard contained in the permit;
- (2) A situation where process or control device parameter values demonstrate that an emission limitation or standard contained in the permit has not been met;
- (3) A situation in which observations or data collected demonstrates noncompliance with an emission limitation or standard or any work practice or operating condition required by the permit; or,
- (4) A situation in which an excursion or exceedance as defined in 40CFR Part 64 (the Compliance Assurance Monitoring (CAM) Rule) has occurred. (only if the emission point is subject to CAM)

For reporting purposes, the Division has combined the Monitoring Deviation Report with the Permit Deviation Report. All deviations shall be reported using the following codes:

1 = **Standard:** When the requirement is an emission limit or standard **2 = Process:** When the requirement is a production/process limit

3 = Monitor: When the requirement is monitoring4 = Test: When the requirement is testing

5 = Maintenance: When required maintenance is not performed
 6 = Record: When the requirement is recordkeeping
 7 = Report: When the requirement is reporting

8 = CAM: A situation in which an excursion or exceedance as defined in 40 CFR Part 64 (the

Compliance Assurance Monitoring (CAM) Rule) has occurred.

**9 = Other:** When the deviation is not covered by any of the above categories

## Report #3: Compliance Certification (annually, as defined in the permit)

Submission of compliance certifications with terms and conditions in the permit, including emission limitations, standards, or work practices, is required not less than annually.

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Compliance Certifications are intended to state the compliance status of each requirement of the permit over the certification period. They must be based, at a minimum, on the testing and monitoring methods specified in the permit that were conducted during the relevant time period. In addition, if the owner or operator knows of other material information (i.e. information beyond required monitoring that has been specifically assessed in relation to how the information potentially affects compliance status), that information must be identified and addressed in the compliance certification. The compliance certification must include the following:

- The identification of each term or condition of the permit that is the basis of the certification;
- The identification of the method(s) or other means used by the owner or operator for determining the compliance status with each permit term and condition during the certification period and whether such methods or other means provide continuous or intermittent data. Such methods and other means shall include, at a minimum, the methods and means required in the permit. If necessary, the owner or operator also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Federal Clean Air Act, which prohibits knowingly making a false certification or omitting material information;
- The status of compliance with the terms and conditions of the permit, and whether compliance was continuous or intermittent. The certification shall identify each deviation and take it into account in the compliance certification. Note that not all deviations are considered violations.<sup>1</sup>
- Such other facts as the Division may require, consistent with the applicable requirements to which the source is subject, to determine the compliance status of the source.

The Certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance as defined under 40CFR Part 64 (the Compliance Assurance Monitoring (CAM) Rule) has occurred. (only for emission points subject to CAM)

Note the requirement that the certification shall identify each deviation and take it into account in the compliance certification. Previously submitted deviation reports, including the deviation report submitted at the time of the annual certification, may be referenced in the compliance certification.

# Startup, Shutdown, Malfunctions, Emergencies, and Upsets

Understanding the application of Startup, Shutdown, Malfunctions, Emergency provisions, and the Upset provisions is very important in both the deviation reports and the annual compliance certifications.

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For example, given the various emissions limitations and monitoring requirements to which a source may be subject, a deviation from one requirement may not be a deviation under another requirement which recognizes an exception and/or special circumstances relating to that same event. Further, periods of excess emissions during startup, shutdown and malfunction may not be found to be a violation of an emission limitation or standard where the source adequately shows that any potential deviations as a result of these infrequent periods were minimized to the extent practicable and could not have been prevented through careful planning, design, or were unavoidable to prevent loss of life, personal injury, or severe property damage.

# Startup, Shutdown, and Malfunctions

Please note that exceedances of some New Source Performance Standards (NSPS) and Maximum Achievable Control Technology (MACT) standards that occur during Startup, Shutdown or Malfunctions may not be considered to be non-compliance since emission limits or standards often do not apply unless specifically stated in the NSPS. Such exceedances must, however, be reported as excess emissions per the NSPS/MACT rules and would still be noted in the deviation report. In regard to compliance certifications, the permittee should be confident of the information related to those deviations when making compliance determinations since they are subject to Division review. The concepts of Startup, Shutdown and Malfunctions also exist for Best Available Control Technology (BACT) sources, but are not applied in the same fashion as for NSPS and MACT sources.

# **Emergencies and Upsets**

Under the Emergency provisions of Part 70 and the Upset provisions of the State regulations, certain operational conditions may act as an affirmative defense against enforcement action if they are properly reported.

### **DEFINITIONS**

**Malfunction** (NSPS) means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

**Malfunction** (SIP) means any sudden and unavoidable failure of air pollution control equipment or process equipment or unintended failure of a process to operate in a normal or usual manner. Failures that are primarily caused by poor maintenance, careless operation, or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions.

**Emergency** means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

**Upset** means an unpredictable failure of air pollution control or process equipment which results in the violation of emission control regulations and which is not due to poor maintenance, improper or careless operations, or is otherwise preventable through exercise of reasonable care.

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# Monitoring and Permit Deviation Report - Part I

- Following is the **required** format for the Monitoring and Permit Deviation report to be submitted to the 1. Division on a semi-annual basis unless otherwise noted in the permit. The Table below must be completed for all equipment or processes for which specific Operating Permit terms exist.
- 2. Part II of this Appendix B shows the format and information the Division will require for describing periods of monitoring and permit deviations, or upset or emergency conditions as indicated in the Table below. One Part II Form must be completed for each Deviation. Previously submitted reports (e.g. EERs or Upsets) may be referenced and the form need not be filled out in its entirety.

FACILITY NAME: Colorado Interstate	Gas Company – Cheyenne Compressor Station
OPERATING PERMIT NO: 950PWE09	90
REPORTING PERIOD:	(see first page of the permit for specific reporting period and dates)

Operating Permit Unit			ns Noted Period? <sup>1</sup>	Deviation Code <sup>2</sup>	Upset/Emergency Condition Reported During Period?	
ID	Unit Description	YES	NO		YES	NO
E001	Cooper ICE, S/N 48534. CIG CG-1					
E002	Cooper ICE, S/N 48833. CIG CG-2					
E003	Cooper ICE, S/N 48532. CIG CG-3					
E004	Cooper ICE, S/N 48531. CIG CG-4					
E005	Cooper ICE, S/N 48867. WIC CG-1					
E006	Cooper ICE, S/N 48868. WIC CG-1					
E-7301	Cooper ICE, S/N 46291. WIC CG-7301					
E-7401	Cooper ICE, S/N 48468. WIC CG-7401					
E008	Caterpillar ICE, S/N 4ZS00310. FR CG-7501					
E009	Solar Combustion Turbine, S/N 1255T. FR CG-7601.					
E010	Caterpillar ICE, S/N BEN00254. FR/CP CG-7701					
	General Conditions					
	Insignificant Activities					

<sup>&</sup>lt;sup>1</sup> See previous discussion regarding what is considered to be a deviation. Determination of whether or not a deviation has occurred shall be based on a reasonable inquiry using readily available information.

<sup>2</sup>Use the following entries as appropriate:

**1 = Standard:** When the requirement is an emission limit or standard 2 = Process:When the requirement is a production/process limit

3 = Monitor: When the requirement is monitoring When the requirement is testing **4** = **Test**:

When required maintenance is not performed **5** = Maintenance: When the requirement is recordkeeping 6 = Record:7 = Report:When the requirement is reporting

A situation in which an excursion or exceedance as defined in 40CFR Part 64 (the Compliance Assurance 8 = CAM:

Monitoring (CAM) Rule) has occurred.

**9** = **Other**: When the deviation is not covered by any of the above categories

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# **Monitoring and Permit Deviation Report - Part II**

FACILITY NAME: Colorado Interstate G OPERATING PERMIT NO: 950PWE090 REPORTING PERIOD:	as Company – C	Cheyenne Compres	sor Station
Is the deviation being claimed as an: (For NSPS/MACT) Did the deviation occur during	EmergencyStartupNormal Operation	Upset _ Shutdown ion	N/A Malfunction
OPERATING PERMIT UNIT IDENTIFICATION:			
Operating Permit Condition Number Citation			
Explanation of Period of Deviation			
Duration (start/stop date & time)			
Action Taken to Correct the Problem			
Measures Taken to Prevent a Reoccurrence of the P	<u>roblem</u>		
Dates of Upsets/Emergencies Reported (if applicable	<u>le)</u>		
Deviation Code (for Division Use Only)		Division Code QA	

SEE EXAMPLE ON THE NEXT PAGE

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# **EXAMPLE**

FACILITY NAME: Acme Corp.					
OPERATING PERMIT NO: 96OPZZXXX					
REPORTING PERIOD: $\frac{1/1/96 - 6/30/96}{1}$					
Is the deviation being claimed as an:	Emergency	Upset	XX	N/A	
(For NSPS/MACT) Did the deviation occur during:					
		tion			
OPERATING PERMIT UNIT IDENTIFICATION:					
Asphalt Plant with a Scrubber for Particulate Control	l - Unit XXX				
Operating Permit Condition Number Citation					
Section II, Condition 3.1 - Opacity Limitation					
Explanation of Period of Deviation					
Slurry Line Feed Plugged					
<u>Duration</u>					
START- 1730 4/10/96					
END- 1800 4/10/96					
Action Taken to Correct the Problem					
Line Blown Out					
Measures Taken to Prevent Reoccurrence of the Pro	<u>blem</u>				
Replaced Line Filter					
Dates of Upsets/Emergencies Reported (if applicable	<u>e)</u>				
4/10/96 to S. Busch, APCD					
Deviation Code (for Division Use Only)	_	Division Code	e QA	<u>.</u>	

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# Monitoring and Permit Deviation Report - Part III

# REPORT CERTIFICATION

SOURCE NAME: Colorado Interstate Gas Company – Cheyeni FACILITY IDENTIFICATION NUMBER: 1230051	ne Compressor Station
PERMIT NUMBER: 950PWE090	
REPORTING PERIOD: (see first page of the	permit for specific reporting period and dates)
All information for the Title V Semi-Annual Deviation Report defined in Colorado Regulation No. 3, Part A, Section I.B.38 packaged with the documents being submitted.	· · · · · · · · · · · · · · · · · · ·
STATEMENT OF COMPLETENESS	
I have reviewed the information being submitted in its er formed after reasonable inquiry, I certify that the statement are true, accurate and complete.	· · ·
Please note that the Colorado Statutes state that any person 1-501(6), C.R.S., makes any false material statement, repreguilty of a misdemeanor and may be punished in accorda 122.1, C.R.S.	sentation, or certification in this document is
Printed or Typed Name	Title
Signature of Responsible Official	Date Signed
<b>Note:</b> Deviation reports shall be submitted to the Division at the address give to the U.S. EPA	ven in Appendix D of this permit. No copies need be sen

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### **APPENDIX C**

# **Format for Annual Compliance Certification Reports**

Following is the format for the Compliance Certification report to be submitted to the Division and the U.S. EPA annually based on the effective date of the permit. The Table below must be completed for all equipment or processes for which specific Operating Permit terms exist.

FACILITY NAME:	Colorado Interstate Gas Company – Cheyenne Compressor Station
OPERATING PERMIT NO: REPORTING PERIOD:	
I. Facility Status	
in the Permit, each term and	ing period, this source was in compliance with <b>ALL</b> terms and conditions contained d condition of which is identified and included by this reference. The method(s) the is/are the method(s) specified in the Permit.
with all terms and condition included by this reference, contact term and condition is the second term.	otion of the deviations identified in the table below, this source was in compliance one contained in the Permit, each term and condition of which is identified and during the entire reporting period. The method used to determine compliance for the method specified in the Permit, unless otherwise indicated and described in the at not all deviations are considered violations.

Operating Permit Unit ID	Unit Description	Deviations Reported <sup>1</sup>				od per	Was compliance continuous or intermittent? <sup>3</sup>		Was Data Continuous? <sup>4</sup>	
		Previous	Current	YES	NO	Continuous	Intermittent	YES	NO	
E001	Cooper ICE, S/N 48534. CIG CG-1									
E002	Cooper ICE, S/N 48833. CIG CG-2									
E003	Cooper ICE, S/N 48532. CIG CG-3									
E004	Cooper ICE, S/N 48531. CIG CG-4									
E005	Cooper ICE, S/N 48867. WIC CG-1									
E006	Cooper ICE, S/N 48868. WIC CG-1									
E-7301	Cooper ICE, S/N 46291. WIC CG-7301									
E-7401	Cooper ICE, S/N 48468. WIC CG-7401									
E008	Caterpillar ICE, S/N 4ZS00310. FR CG-7501									
E009	Solar Combustion Turbine, S/N 1255T. FR CG-7601.									
E010	Caterpillar ICE,S/N BEN00254. FR/CP CG-7701									

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Operating Permit Unit ID	<u> </u>		Deviations Monitoring Reported <sup>1</sup> Method per Permit? <sup>2</sup>		Was compliance continuous or intermittent? <sup>3</sup>		Was Data Continuous? <sup>4</sup>		
		Previous	Current	YES	NO	Continuous	Intermittent	YES	NO
	General Conditions								
	Insignificant Activities <sup>5</sup>								

If deviations were noted in the previous deviation report (i.e. for the first six months of the annual reporting period), put an "X"under "previous". If deviations were noted in the current deviation report (i.e. for the last six months of the annual reporting period), put an "X" under "current". Mark both columns if both apply.

The Periodic Monitoring requirement of the Operating Permit program rule are intended to provide assurance that even in the absence of a continuous system of monitoring the Title V source has operated in continuous compliance for the duration of the reporting period. Therefore, if a source 1) conducts all of the monitoring and recordkeeping required in its permit, even if such a activities are done periodically and not continuously, and if 2) such monitoring and recordkeeping does not indicate non-compliance, and if 3) the Responsible Official is not aware of any credible evidence that indicates non-compliance, then the Responsible Official can certify that the emission point(s) in question were in continuous compliance during the applicable time period.

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<sup>&</sup>lt;sup>2</sup> Note whether the method(s) used to determine the compliance status with each term and condition was the method(s) specified in the permit. If it was not, mark "no" and attach additional information/explanation.

<sup>&</sup>lt;sup>3</sup> Note whether the compliance status with of each term and condition provided was continuous or intermittent. "Intermittent Compliance" can mean either that noncompliance has occurred or that the owner or operator has data sufficient to certify compliance only on an intermittent basis. Certification of intermittent compliance therefore does not necessarily mean that any noncompliance has occurred.

<sup>&</sup>lt;sup>4</sup> Note whether the method(s) used to determine the compliance status with each term and condition provided continuous or intermittent data.

<sup>&</sup>lt;sup>5</sup> Compliance status for these sources shall be based on a reasonable inquiry using readily available information.

II.	Statu	s for Accident	tal Release Prevention	Program:		
	A.	•	y is subject Program (Section 112(		to the provisions of the Accidental Relea ean Air Act)	se
	B.	If subject: section 112	_	is is not	t in compliance with all the requirements	of
			isk Management Plan and ority and/or the design		has been submitted to the approprian by the required date.	.te
III.	Certi	fication				
Colora	ado Re		3, Part A, Section I.B.3		rtified by a responsible official as defined rtification document must be packaged wi	
reaso	nable i				on information and belief formed afton n contained in this certification are tru	
C.R.S	., mak	es any false i	naterial statement, re	epresentation, or co	to knowingly, as defined in § 18-1-501(6) ertification in this document is guilty of isions of § 25-7 122.1, C.R.S.	
		Printed or T	Typed Name		Title	
		Signat	ure		Date Signed	
			certifications shall be Agency at the addresse		Air Pollution Control Division and to the X D of this Permit.	ne

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#### APPENDIX D

#### **Notification Addresses**

#### **Air Pollution Control Division** 1.

Colorado Department of Public Health and Environment Air Pollution Control Division **Operating Permits Unit** APCD-SS-B1 4300 Cherry Creek Drive S. Denver, CO 80246-1530

ATTN: Jim King

#### 2. **United States Environmental Protection Agency**

Compliance Notifications:

Office of Enforcement, Compliance and Environmental Justice Mail Code 8ENF-T U.S. Environmental Protection Agency, Region VIII 999 18th Street, Suite 300 Denver, CO 80202

Permit Modifications, Off Permit Changes:

Office of Partnerships and Regulatory Assistance Air and Radiation Programs, 8P-AR U.S. Environmental Protection Agency, Region VIII 999 18th Street, Suite 300 Denver, CO 80202

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# **APPENDIX E**

# **Permit Acronyms**

# Listed Alphabetically:

NSPS -

P -

PE -PM -

AIRS -	Aerometric Information Retrieval System
AP-42 -	EPA Document Compiling Air Pollutant Emission Factors
APEN -	Air Pollution Emission Notice (State of Colorado)
APCD -	Air Pollution Control Division (State of Colorado)
ASTM -	American Society for Testing and Materials
BACT -	Best Available Control Technology
BTU -	British Thermal Unit
CAA -	Clean Air Act (CAAA = Clean Air Act Amendments)
CCR -	Colorado Code of Regulations
CEM -	Continuous Emissions Monitor
CF -	Cubic Feet (SCF = Standard Cubic Feet)
CFR -	Code of Federal Regulations
CO -	Carbon Monoxide
COM -	Continuous Opacity Monitor
CRS -	Colorado Revised Statute
EF -	Emission Factor
EPA -	Environmental Protection Agency
FI -	Fuel Input Rate in Lbs/mmBtu
FR -	Federal Register
G -	Grams
Gal -	Gallon
GPM -	Gallons per Minute
HAPs -	Hazardous Air Pollutants
HP -	Horsepower
HP-HR -	Horsepower Hour (G/HP-HR = Grams per Horsepower Hour)
LAER -	Lowest Achievable Emission Rate
LBS -	Pounds
M -	Thousand
MM -	Million
MMscf -	Million Standard Cubic Feet
MMscfd -	Million Standard Cubic Feet per Day
N/A or NA -	Not Applicable
NOx -	Nitrogen Oxides
NESHAP -	National Emission Standards for Hazardous Air Pollutants

PM<sub>10</sub> - Particulate Matter Under 10 Microns

Particulate Emissions

Particulate Matter

New Source Performance Standards Process Weight Rate in Tons/Hr

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PPM	Parts Per Million		
PPMV	Parts Per Million, by Volume		
PPMVD	Parts Per Million, by Volume, Dry		
PSD -	Prevention of Significant Deterioration		
PTE -	Potential To Emit		
RACT -	Reasonably Available Control Technology		
SCC -	Source Classification Code		
SCF -	Standard Cubic Feet		
SIC -	Standard Industrial Classification		
SO <sub>2</sub> -	Sulfur Dioxide		
TPY -	Tons Per Year		
TSP -	Total Suspended Particulate		
VOC -	Volatile Organic Compounds		

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# APPENDIX F

# **Permit Modifications**

DATE OF REVISION	TYPE OF REVISION	SECTION NUMBER, CONDITION NUMBER	DESCRIPTION OF REVISION

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